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THESIS

**THE POTENTIAL ROLE OF THE UNITED STATES
MARITIME SERVICE (USMS) IN SUPPORTING READY
RESERVE FORCE VESSEL CREWING NEEDS**

by

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June 2001

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NEEDS**

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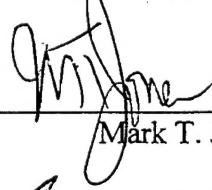
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ABSTRACT

Because of concerns about possible Merchant Mariner manpower shortages or skill mismatch needed to crew DoD organic vessels during a major contingency, the Maritime Administration (MARAD) has proposed the development of a guaranteed surge pool of experienced inactive mariners available to ensure timely and adequate manning of its Ready Reserve Force (RRF). This pool would be a supplement, not a replacement, to the current active pool of mariners used to crew the RRF. This initiative is centered on using the United States Maritime Service (USMS) concept. Two main options were proposed: create a stand-alone USMS program under MARAD, and/or integrate the USMS concept with Navy's Merchant Marine Reserve (MMR) program.

Fourteen structured interviews were conducted with strategic sealift stakeholders and experts in order to provide MARAD and the Navy with elements of how these pools/programs could be developed and to identify the option that stakeholders believe is the best approach. Interview results revealed that a stand-alone USMS program, providing it could overcome various obstacles, was the preferred approach. Analysis and recommendations are provided on how both pools could be developed and what issues need to be resolved prior to either program implementation. An alternate approach to use the MMR program for RRF crewing is provided as well.

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I. INTRODUCTION

Among the ongoing efforts at MARAD is the assessment of the supply of mariners to meet commercial and mobilization crewing requirements, now and in the future. Right now, MARAD is seeing and hearing of recruitment and retention problems in the seagoing workforce, just as every industry is facing labor shortages in this vibrant economy. Based on our analysis of mariner data, there are enough qualified active seafarers to crew the DOD organic fleet for a short duration, but this could dry up much of the pool. An extended mobilization of the entire government-owned surge fleet would create pressure to rotate government and commercial ship crews, by augmenting the pool with inactive mariners. There is likely to be a mismatch between available mariners and the specific skills needed to fully activate the DOD organic fleet. We are also concerned that shoreside commitments of some of the inactive mariners – such as work and family -- may keep them from volunteering to serve, even with re-employment rights. These uncertainties concern us. (Clyde Hart, JR. MARITIME ADMINISTRATOR BEFORE THE COMMERCE, SCIENCE AND TRANSPORTATION COMMITTEE U.S. SENATE IN SUPPORT OF FISCAL YEAR 2001 AUTHORIZATION, 16 May 2000)

A. BACKGROUND

The Ready Reserve Force (RRF) consists of 76 vessels that are owned by the U.S. Government. The RRF program exists to ensure that, in the event of a contingency, organic capabilities exist to transport Department of Defense (DoD) assets within given timeframes. The RRF provides the majority of the cargo capacity with the “surge” element of sealift, joined by the 19 surge ships of Military Sealift Command (MSC). The ships are maintained in various readiness states as defined by U.S. Transportation Command (USTRANSCOM) to meet prescribed cargo loadout. The RRF is maintained by the U.S. Maritime Administration (MARAD) to be able to reactivate with four, five, ten or 20 days. Ships with a readiness of four or five are maintained in Reduced Operating Status (ROS) and have a full-time partial crew (ten and nine persons,

respectively) to conduct maintenance and keep the ship in the higher readiness status.

Ships in ten or 20-day status do not have assigned crews onboard.

MARAD, an agency of the Department of Transportation (DOT), is responsible for the management of the RRF program. MARAD contracts with commercial ship managers to operate and maintain RRF vessels. These ship managers draw qualified Merchant Mariners from their various contracted commercial maritime labor unions. Upon activation of the RRF ships, MARAD would direct the shipping companies to provide additional personnel to fully crew the vessels.

In the event of a major contingency, a significant or full activation of the RRF would be required. During Operation Desert Shield/Storm, 79 of the then 96 RRF ships were activated by MARAD. There were two main problems encountered with the activation of the RRF ships. One was the physical condition and readiness level of the ships that prevented some ships from meeting their required activation times. The other problem was that the ships had not been active in a long time, some as long as 14 years. Enough qualified merchant marines were found, but the activation of the RRF and the war put a significant strain on the U.S. Merchant Marine manpower pool. If the war had continued for a longer period, both the government and commercial fleets would have encountered more strenuous crewing problems.

Today, the available manpower pool needed for normal or peacetime operation, surge/mobilization requirements, and sustainment (with commercial U.S.-flag ships) operations are a concern for everyone involved in strategic sealift. The concern is whether the peacetime pool is large enough to satisfy peacetime and mobilization

requirements. In a practical sense, with only 300 large commercial vessels under U.S. flag, is the peacetime, commercial mariner pool sufficiently sized to meet a wartime, government surge crewing requirement to activate about 100 organic ships? Most experts agree that there could be a manpower shortage if the RRF had to be activated for a significant period of time (NDTA, 2000). Given the important role that merchant mariners play in supporting the government's strategic sealift mission, what could or should be done to ensure adequate, qualified mariners, with the required qualifications, are available? There are numerous actions that the government could take to address this concern. One initiative that MARAD has proposed is establishing a guaranteed surge pool of inactive mariners available to ensure timely and adequate manning of the RRF. The initiative is centered on using the United States Maritime Service (USMS) concept to develop the pool. This thesis explores the options available in the development of a pool using the USMS.

By using the USMS concept, there are three main approaches to the establishment of a guaranteed pool that MARAD could take. First, it could develop a new dedicated stand-alone pool of inactive merchant mariners under the sole control of MARAD. A second option is to integrate the USMS concept with the Navy's Merchant Marine Reserve (MMR) Program. The MMR consists of Selected Reservists and Individual Ready Reserves (MMIRRG) that have valid Coast Guard licenses (deck, engine, or radio). There are approximately 2400 officers in the MMR Program. The second approach would allow MARAD to take advantage of an existing program that can provide for the mariner's training and qualification needs, but have the flexibility to recall these mariners as civilian mariners instead of military officers to serve on MARAD

vessels. The third approach is to have both a stand-alone USMS pool under MARAD and a program that allows mariners to be in both the USMS and the MMR.

B. PURPOSE

The purpose of this thesis is to explore the potential role that the United States Maritime Service concept could play in developing a guaranteed surge pool of mariners to support Ready Reserve Force (RRF) crewing needs. It will describe the current roles, missions, aspects, and organizations involved in United States (U.S.) strategic sealift. Based on information obtained from stakeholders involved in strategic sealift and the U.S. Merchant Marine, this thesis will then provide some of the elements necessary for the development of a stand-alone USMS organization or a combined USMS/MMR program. It will also identify the option that industry experts believe is the best approach.

C. RESEARCH QUESTIONS

1. Primary

- Given the need for a backup pool, what is the best approach to satisfy the need: a USMS stand-alone program, a combined USMS/MMR program, or a combination of both?

2. Secondary

- What are the major advantages and disadvantages for each of these options?
- What incentives are needed to entice individual mariners to join and remain in the program and for affected organizations to support/participate in a USMS program?
- What are the training and qualification requirements?
- What are the sign up and obligation requirements for members participating in the program?
- What organization(s) should manage the programs?
- What are the obstacles (real or perceived) in using the USMS concept?

- What are the opinions of stakeholders on forming a stand-alone pool or a dual USMS/MMR pool?

D. SCOPE

The thesis will focus on the development of a manning pool of merchant mariners for the RRF using the USMS concept. Based on a literature review and information obtained from interviews, it will propose a stand-alone USMS organization, a combined USMS/MMR program, or a combination of a stand-alone and USMS/MMR program. The thesis will also provide some of the key elements necessary to develop both approaches, and discuss the obstacles, the pros and cons, and opinions on the two pool options obtained from interviews of industry experts and stakeholders. Also, the number and type of RRF vessels and their crewing requirements provided by MARAD will be taken at face value and not specifically analyzed.

E. METHODOLOGY

A literature review as well as interviews will be used to conduct this research. A new USMS organization and/or a combined USMS and MMR organization will be described and developed based on themes derived from analysis of the interviews.

F. ORGANIZATION OF THE STUDY

This thesis will be divided into five chapters. Chapter II will provide background information on the organizations and programs that would be involved or effected in creating this new pool of mariners, the status of the U.S. Merchant Mariner pool, and a brief history of the USMS. It will also discuss the actions and initiatives currently being pursued that would impact the active mariner pool or effect the creation of a new USMS inactive mariner pool. Chapter III will describe the research methods and methodologies used in conducting the interviews. Chapter IV will summarize the results of the data

obtained from the interviews. Chapter V provides conclusions, a recommended course of action, and suggestions for further studies.

II. BACKGROUND

A. INTRODUCTION

Before a new concept such as the USMS can be discussed or developed, it is important to have a frame of reference to understand why the topic of strategic sealift is relevant and to understand its relationship with previous and current practice, the environment, and areas affected by or affecting its development. The overarching area involved for this thesis is strategic sealift. Strategic sealift encompasses several related areas, including the U.S. government vessels and commercial ships used to move material, the U.S. Merchant Marine, and the programs, organizations, and relationships in place that help ensure the U.S. can perform its strategic sealift mission.

B. IMPORTANCE OF STRATEGIC MOBILITY AND SEALIFT

America's military is arguably the best trained and possesses the most technologically advanced equipment in terms of quality and quantity of any military in the world. However, having the best military is of little value unless it has the capability to quickly transport that force to the battlefield, no matter where in the world that is located. To transport our force, the U.S. employs a strategic mobility system. The strategic mobility system consists of the equipment, personnel, and logistics know-how that enables the Department of Defense to deliver forces great distances.

The strategic mobility (or lift) system consists of three parts: strategic airlift, strategic sealift, and prepositioning. Strategic airlift uses aircraft to fly in cargo and personnel, strategic sealift uses ships to transport cargo from the United States, and prepositioning uses ships or warehouses located abroad. Prepositioning allows the

United States to place military assets in locations close to where conflicts are likely to occur. (CBO 1997) All three parts of strategic mobility have their strengths and weaknesses. Airlift is fast but is limited in space and weight and is also costly. Sealift is slower but has the ability to carry a significant amount of cargo (weight and size). Prepositioning is able to get material to the objective quickly, provided that it is staged near the geographic location of the conflict. The DoD cannot complete its mission in the event of a major theater war (MTW), let alone two, without all three components functioning properly and to their fullest potential.

1. Strategic Sealift

During Desert Shield/Storm, 95 percent of all assets were transported to the theater via strategic sealift. Several factors or planning assumptions help determine the capacity, number, type/composition, and location of these strategic sealift vessels. They are as follows:

- Type of conflict anticipated
- Location, sequence, and number of MTWs
- Make-up of the Battleforce. What are the warfighter's requirements for delivery of what materials when?
- Cost of using one type of mobility instead of another or using organic assets versus commercial
- Speed: When is the equipment/material needed? What are the timeframes?
- Lessons learned from previous mobility operations, including Operation Desert Shield/Desert Storm
- The strengths and weaknesses of a given asset or type of mobility.

Using these factors and many other inputs, three requirement studies have been completed since the completion of Desert Shield/Storm. They are the Mobility Requirements Study (MRS) of 1992, the Mobility Requirements Study Bottom-Up

Review Update (MRS BURU) of 1995, and the Mobility Requirements Study of 2000 (MRS-05). The scenario used for planning is one where the United States will fight two nearly simultaneous MTWs on the Korean Peninsula and in the Persian Gulf region. (CBO 1997)

Strategic sealift's role of delivering cargo to support the anticipated scenario can be categorized into two parts: surge and sustainment shipping. Surge shipping would deliver the necessary equipment for combat and support units within the first 20 days of the start of a conflict with the first ship available for loading in about 96 hours upon activation notice. The MRS BURU study determined that the target amount of capacity for surge shipping is ten million square feet of cargo. (CBO 1997) Sustainment shipping would deliver the required supplies (fuel, food, spare parts, ammunitions, etc.) to resupply operations. MRS-05 determined that an additional one million square feet was required, bringing the total to 11 million square feet.

Strategic Sealift can also be broken down into two types of assets: organic and commercial. Organic sealift vessels are owned or controlled by the U.S. Government. Commercial sealift vessels are domestic and foreign ships that the U.S. has access to via readiness agreements, time charters, and through the commercial spot charter market.

The United States has five categories of sealift vessels to complete the strategic sealift surge and sustainment missions: 1) The Military Sealift Command (MSC) Force, 2) The Ready Reserve Force (RRF) controlled by the MARAD, 3) U.S. Commercial Shipping, 4) Effective U.S. Control (EUSC) ships, and 5) Other Allies. (MSC, 2001) The MSC Force and the RRF are the United States' organic assets that complete the

strategic sealift surge mission. U.S. Commercial Shipping, EUSC, and Other Allies are considered commercial assets and are used primarily for sustainment missions. Appendix A lists the total number of ships and types in these categories. The remainder of this section will provide amplifying information on each of these categories, with the exception of the Ready Reserve Force, which is described in section C.

2. MSC Force

The Military Sealift Command currently controls 59 ships in the MSC Force category of strategic sealift inventory. All of the ships in this category are considered organic assets. Of these 59 ships, 50 carry dry cargo and nine are tankers designed primarily to carry petroleum products and include underway replenishment capability. These ships make up all of the afloat prepositioning assets and a portion of our surge assets. Thirty-three of these ships comprise the Prepositioning Program. Two types or classes of ships, the Fast Sealift Ships (FSS) and the Large, Medium-Speed Roll-on/Roll-off (LMSR), are the backbone (or will eventually become the backbone) of surge sealift capacity in this category.

3. U.S. Commercial

The U.S. Commercial category has a total of 198 ships: 111 dry cargo, 86 tankers, and one passenger. (MSC 2001) These ships are considered sustainment type assets. This category can be further broken down into two other commercial ship categories: Readiness Agreements and Other U.S. Commercial. The following will focus on ships (or capacity of ships) that are involved in readiness agreements, specifically, the Voluntary Intermodal Sealift Agreement (VISA), and the Maritime Security Program (MSP).

a. Maritime Security Program (MSP)

In October 1996, President Clinton signed into law (Public Law 104-239) the Maritime Security Program. Part of the Maritime Security Act (MSA), MSP makes military useful commercial U.S.-flag ships available to the U.S. Government. These ships are owned by U.S. citizens and crewed by American merchant mariners. There are currently 47 ships in the program controlled by ten companies. In addition to the MSP ships themselves, the program participants/companies bring the necessary network of logistics management services, terminals and equipment, communications, and cargo tracking systems. (MSA 1998)

MSP costs the government 2.1 million dollars per ship annually or approximately \$100 million per year. Funding is authorized though the life of the program until FY2005. (Thompson 1998) Administered by MARAD, MSP was established to replace a program known as the Operating-Differential Subsidy (ODS) program. Similar to MSP, ODS paid carriers the difference between the higher costs, specifically labor costs, that U.S.-flagged vessels incurred as opposed to foreign-flag vessels.

MSP has several advantages and is a significant improvement over ODS. First, because the U.S. paid the cost difference between operating a U.S-flagged vessel and operating a foreign-flag vessel, ODS provided little incentive for ship operators to control wages. This resulted in a cost of approximately four million dollars per ship per year. Also, ODS put restrictions on ships operating routes. MSP does not restrict operating routes and pays a flat rate instead of a differential U.S versus foreign cost amount. (Donnelly 1999) Second, MSP, similar to an insurance policy, provides

military- useful vessels for sustainment shipping that relieves the U.S. from having to purchase/maintain or contract for vessels on a full-time basis. Third, MSP, as did ODS, helps the U.S. commercial shipping industry by assuring a continued U.S. presence in international trade and access to world markets with U.S. vessels. Fourth, MSP helps to ensure that there is a pool of trained and experienced U.S. mariners to operate these and other ships when needed in the event of a contingency. Finally, as a condition of acceptance in MSP, the vessel owner must pledge the vessel capacity to VISA, the emergency preparedness program approved by DOT and DoD.

b. Voluntary Intermodal Sealift Agreement (VISA)

Similar to MSP, VISA is another partnership with the U.S. commercial shipping industry intended to make commercial vessel capacity and intermodal infrastructure available during a contingency. VISA exists under MARAD authority for voluntary agreements with industry as amended in the Defense Production Act of 1950 and the Merchant Marine Act of 1936. Secretary of Defense Cohen approved it on January 30, 1997. (VISA 2000) It is based on the Air Force's Civil Reserve Air Fleet (CRAF) Program and like CRAF, provides support in three stages of activation, with the final stage implemented only during times of dire crisis.. Although similar to CRAF's Wide Body Equivalent, VISA does not name specific ships in the agreement but rather commits ship capacity. Stage I has 15 percent of the capacity and Stage II has 25 percent of shipping capacity of participating firms enrolled in the program.

VISA, like MSP, assures critical sealift capacity is available for contingencies, contributes to a healthy U.S. Merchant Marine, and balances defense and economic elements of commercial transportation for national security. VISA and MSP

are complementary programs. More than 80 percent of U.S.-flag commercial shipping is enrolled in VISA Stage III. In fact, Stage III requires participants to commit a minimum of 50 percent of their non-MSP assets and 100 percent of their MSP vessel assets. A total of 70 percent of the companies with vessels enrolled in MSP participate in VISA Stage III. (VISA 2000)

c. Effective U.S. Control

The Effective U.S. Control (EUSC) category consists of 117 ships. (MSC 2001) The EUSC or “flag-of-convenience” concept was developed by the Roosevelt Administration prior to the start of World War II as a means to circumvent the Neutrality Act. (Transportation Institute 2000) By encouraging U.S. ship owners to register their ships in Panama and Honduras, it allowed the U.S. to transport aid to European “allies” before the U.S. entered the conflict. Since then, other countries such as Liberia, the Bahamas, and the Republic of the Marshall Islands have also established flag-of-convenience open registries for U.S. owned merchant ships.

The requisitioning provision of the Merchant Marine Act of 1936 provides for MARAD to take control of these ships when the President specifically authorizes such action through Executive Order during a national emergency. The capacity provided by these ships would be a tremendous asset if utilized. However, there are some concerns about EUSC. For one, requisitioning authority has been untested since WWII, and there are differing legal opinions whether the process to acquire these ships will work. Second, countries that have EUSC ships could potentially use legal roadblocks to prevent the U.S. Government from exercising its requisitioning authority. Finally, although there are 117 ships available, these ships have a limited utility for DoD

because most are large tankers or bulk carriers, not the primary military cargo carriers desired by DoD. (Tokarski 2001)

d. Other Allies

The 59 ships that comprise the “Other Allies” category are ships named in a bilateral shipping agreement with the Republic of Korea. The program is known as the Korean Flag Shipping (KFS) Program. The 59 ships are all Korean-flagged commercial ships that are not controlled by the Korean Government. The program originated with a Memorandum of Understanding between the United States and Republic of Korea on 25 Mar 81. Since then, Standard Operation Procedures have been developed to discuss specific procedures for activation of these vessels. (KFS SOP 1995)

The KFS Program ensures that additional shipping assets are readily available in the event of a major contingency in the Republic of Korea (ROK). On a day-to-day basis, these ships are not controlled by MSC or ROK, but during such a contingency, control of these ships would transfer to MSC.

This program has several benefits. First, it shows a commitment by the ROK to help defend itself from an invasion. Second, it significantly increases the sealift capacity needed to support a MTW with assets that are familiar with the country and that are typically geographically located near Korea before the contingency begins. Third, it is a tremendous cost saver for the United States government. No funds are paid to the ROK or the ship owners to participate in this agreement. The program also saves money if and when these ships are activated because the U.S. will not be responsible for paying for the daily charter costs to operate these ships nor will they be required to pay for the ship’s war insurance.

C. READY RESERVE FORCE

The Ready Reserve Fleet (RRF) program was created in 1976 to support the rapid worldwide deployment of U.S military forces. In 1985, the name was changed to the Ready Reserve Force. The RRF consists of 76 ships down from a Desert Shield/Storm high of 96. MARAD maintains these militarily useful ships at all times. Operational Control (OPCON) of these ships transfers to Military Sealift Command (MSC) during wartime or a contingency while administrative control remains with MARAD. These ships are actually part of a subcomponent of MARAD's National Defense Reserve Fleet (NDRF) that consists of 237 ships. Although managed by MARAD, Congressional funding for the program goes to the Navy-administered National Defense Sealift Fund. Current inventory consists of 31 Roll-on/Roll-off (RO/ROs), 15 breakbulk, three Seabee ships, four LASH ships, two trooperships, nine tankers, two aviation logistics support ships, and ten auxiliary crane ships (T-ACS). Four of the vessels are tendered to MSC for long term prepositioning missions. RRF ships are all considered organic assets and comprise over approximately five million square feet of DoD's surge shipping capacity. (CBO 1997) They are strategically located at outport locations to avoid congestion, to be closer to actual military loading ports, and provide quick response to military force requirements. (NVR 1999)

All RRF ships have a readiness designation that describes the number of days it would take to make a ship fully operational and ready for sea upon activation notification. A lesson learned from Desert Shield/Storm was that the RRF was poorly maintained due to limited maintenance and readiness testing funding levels and took longer to activate than anticipated, resulting in ships being late on average of ten days.

(CBO 1997) To correct this problem, Congress increased appropriations to improve the material state of readiness and established new readiness categories for some vessels by adding small partial crews (reduced operating status (ROS)). Ships are now kept in readiness status of ROS-4, ROS-5, RRF-10, and RRF-20. ROS-4 and ROS-5 ships have a ten or nine member crew on board, respectively, that performs maintenance. They are skilled in the activation process and will sail with the ship when activated. This relieves ships in ROS-4 and ROS-5 status from having to be towed to a shipyard for activation. Additionally, ships in ROS-4 conduct annual sea trials, and ships in ROS-5 alternate each year between sea trials and dockside trials to validate readiness. Ships in the RRF-10 and RRF-20 categories also conduct sea and dock trials, but less frequently but more importantly do not have small crews onboard.

D. MANNING AND OPERATION OF THE RRF

Through MARAD's oversight of the RRF program, commercial ship management firms are hired to operate and maintain the ships. The various firms in turn hire U.S. Merchant Mariners from their various contracted maritime labor unions to maintain and operate the ships. The contract award to ship managers determines labor sources for the RRF. These maritime labor contracts are between the shipping companies and the unions, not with MARAD. (MARAD 1999)

1. Typical Ship Manning Structure

RRF vessels have the same basic shipboard manning or mariner structure used on commercially operated ships. There are two categories of mariners that serve on ships: licensed and unlicensed. Licensed officers are further broken down between deck officers and engineering officers. The following shows the basic structure, primary duties, and typical ship population for licensed mariners:

DECK OFFICERS:

1 - Master

1- Chief Mate

1- Second Mate

1-Third Mate

1- Radio Officer (duties may be assumed by Global Maritime Distress & Safety System (GMDSS)-qualified deck officers)

Primary duties: navigation, safety, cargo operations, ship's business, and communications

ENGINEERING OFFICERS:

1- Chief Engineer

1- First Assistant Engineer

1- Second Assistant Engineer

1-2 Third Assistant Engineer

Primary duties: operating engineering plant, maintenance and repair.

Unlicensed mariners serve in one of three shipboard departments: deck, engine, and stewards. Basic structure, duties, and population are as follows:

DECK DEPARTMENT:

6-10 ratings: Bosun (one), Able Seamen (AB), Ordinary Seaman (OS).

Duties include bridge watch, helmsman, lookout, deck maintenance, line handling, and assisting the deck officer with cargo loading oversight.

Engine Department:

1-6 ratings: Qualified Member of Engine Department (12 endorsements for QMED), tankerman / pumpman.

Note: The degree of engine automation affects manning level

Duties include engine room watch, maintenance and repairs, electrician, and refrigeration.

Stewards Department:

2-6 members: Chief Steward, Cook, Baker, Messmen

Duties include providing messing and hotel services (MARAD, 1999)

RRF ship manning is shown in Appendix B. Appendix B breaks down the required manning on the 76 RRF ships in four categories: ROS Licensed, ROS Unlicensed, Surge Licensed, and Surge Unlicensed. ROS personnel are mariners that are assigned to the RRF ships on a full-time basis (RRF ROS). These are ships in ROS-4 and ROS-5 status. The additional mariners needed to fully crew all RRF ships make up the surge category (RRF SURGE). Also, although counted as surge numbers, the mariners that crew the four ships tendered to MSC that are being used as active prepositioning ships on a full-time basis are accounted for separately (RRF PREPO). There is a total of 135 mariners in RRF PREPO status, and 485 mariners employed full-time on ships in RRF ROS status. In the event of a full activation, an additional 1886 mariners would be

required to man the surge requirement for all 76 ships, resulting in a total number of 2506 mariners.

E. MERCHANT MARINE RESERVE U.S. NAVAL RESERVE PROGRAM

The Naval Reserve, which shall be a component part of the United States Navy, shall consist of three classes, namely the Fleet Reserve, the Merchant Marine Naval Reserve, and the Volunteer Naval Reserve (43 STAT 1080, 1090, 28 Feb 25)

Congress established the Merchant Marine Reserve (MMR) Program as a component of the U.S. Navy via the Naval Reserve Act of 1925. In 1938, the name was changed to the Merchant Marine Reserve. The program was designed to facilitate coordination and integrated operations between the U.S. Merchant Marine and the U.S. Navy. The program was also designed based on the Declaration of Policy statement from Title I of the Merchant Marine Act of 1936. It required the United States to have a Merchant Marine capable of serving as a naval military auxiliary in time of war or national emergency. It also required Merchant Marine officers employed on subsidized or DOT vessels to be members of the Naval Reserve, if eligible. (OPNAV N42 1999)

Since its inception, the MMR Program has gone through several reorganizations and changed directions. Today's program, established March 1979, is intended to ensure the continued mutual support, coordination, and cooperation between the U.S. Navy and the U. S. Merchant Marine. The MMR Program provides a uniquely qualified pool of Merchant Marine officers. These officers have civilian merchant mariner experience and valid U.S. Coast Guard (USCG) licenses as well as the naval training and professional development possessed by Naval Officers. The specific stated mission of the MMR Program is to:

Maintain in the USNR an organization of Merchant Marine officers composed of:

- a. A corps of actively sailing members who are trained to operate merchant ships as naval and military auxiliaries; and,
- b. A shoreside cadre assigned to naval activities that support strategic sealift readiness. (MMR Handbook, 2000)

1. Organization

The MMR Program's structure and organization is different from most Naval Reserve programs, to account for the unique nature of merchant mariners. Merchant mariners who are actively sailing are typically at sea eight months out of the year at any given time. The program consists of two types of officers: Selected Reservists (SELRES) and Individual Ready Reserve (IRR). Over 95 percent of program participants belong to the IRR component, referred to as the Merchant Marine Individual Ready Reserve Group (MMIRRG). The MMR Program is further broken down into three different categories:

a. Midshipman Category

This category includes students attending the U.S. Merchant Marine Academy (USMMA), state and regional maritime academies, and other selected maritime schools. The category is designed to qualify participants for active or reserve commissioned service. Participants include all students at the USMMA and students at the state and other academies that participate in the Student Incentive Program (SIP).

b. IRR Category

As previously mentioned, members in this category make up the MMIRRG. Officers in this category are not affiliated with an organized reserve unit. The MMIRRG satisfies the sea mission of the MMR Program by providing personnel who are trained to operate merchant ships as naval and military auxiliaries. These

officers have valid USCG licenses and are required to be actively sailing or in the maritime industry.

c. SELRES Category

This consists of two components: the Merchant Marine Reserve Operational Command Headquarters (MMROCH) Units and MMR Sealift Support Billets. Members in these types of units fulfill the MMR Program's shore mission. They provide trained personnel to Navy activities and other government agencies that support strategic sealift readiness.

2. MMR Program Designators

Officers in the MMR Program are assigned one of four designators, based on their qualifications and background. These special duty restricted line designators are:

- 1625 - Merchant Marine, Deck
- 1665 - Merchant Marine, Deck and Engineering
- 1675 - Merchant Marine, Engineering
- 1695 – Merchant Marine, Communications

These four designators correspond very closely to the U.S. Merchant Marine equivalents for areas of licenses in the three main areas.

3. Sources of Officers and Obligation Requirements

There are several sources that provide officers for the MMR Program. They include:

- U.S. Merchant Marine Academy (USMMA) graduates
- California, Great Lakes, Maine, Massachusetts, New York, and Texas – State Maritime Academies
- Direct Commission for Non-Academy Graduates
- Transfer from other Reserve Programs

Some officers join or participate in the MMR Program by choice (i.e., designator change, direct commission, or after satisfactory completing of initial service agreement obligations). The majority of program participants are graduates from the U.S. Merchant Marine Academy or State Academies that affiliate to satisfy obligations they incur from participation in Training and Service Agreements (TSA). The TSAs require personnel under these agreements to obligate to the MMR or satisfy other requirements.

The primary TSA is the MMR, USNR TSA, which is the Midshipman Program (CNET 1534/2 or 1534/3). Officers who graduate from the U.S Merchant Marine Academy or participate in the Student Incentive Program (SIP) at a state maritime academy are considered program participants and assume an eight-year and six-year obligation respectively at commission/graduation. They do have options on how to complete that obligation. Officers can serve on active duty for three years then join the IRR with no further obligation, or affiliate with the MMR SELRES, the MMIRRG, or a combination of the two to satisfy their eight-year commitment.

The second TSA is the NAVCRUIT 1131/4. Officers commissioned under the direct commissioning program also assume an eight-year obligation. They too have options either to serve as a SELRES for two years followed by six years in the IRR with no additional participation, or for six years in the MMIRRG with the final two years in the IRR with no additional participation. The final TSA is known as the Ready Reserve Service Agreement (NAVPERS 1200/1). Officers already in the MMR Program who complete their initial eight-year obligation must execute a Ready Reserve Service Agreement to continue to serve in the MMR, either as a SELRES or MMIRRG.

Additionally, Midshipman Program participants also have requirements to fulfill as specified in MARAD's Service Obligation Contract (SOC). The obligation requires the officer to maintain a merchant marine license for six years following graduation, and to serve eight years in one of the Armed Service options as previously discussed.

4. MMR Program Requirements

In order to meet their obligation requirements and stay active in the MMR Program, each officer must fulfill certain requirements. Those requirements are:

- Maintain an active USCG unlimited tonnage license
- Perform Annual Training (AT) once a year or obtain a waiver. Priorities for ATs are: Standards of Training, Certification, and Watchkeeping (STCW), maintaining seafaring skills to be a mariner, and expanding your qualifications
- Submit an annual report for each calendar year by 01 March
- Obtain a Navy physical at least once within every five-year period
- Notify the MMR office of any change in status such as address/contact information, marital or dependent status, and physical condition that could limit performance of reserve obligation
- Respond to all correspondence and regularly check the MMR office's web-side. (MMR program brief 2001)

5. Program and Command Responsibilities

There are several commands involved in the administration and operation of the MMR Program. Their primary responsibilities and roles are as follows:

a. Director, Strategic Sealift Division (N42) of the Deputy Chief of Naval Operations for Logistics (OPNAV N4)

The program sponsor, OPNAV N42, provides policy and planning direction for the program, validates and funds billet requirements, and supports budgeting, personnel, and logistics requirements. This command also sets the program's training objectives and assesses program progress in achieving those objectives.

b. Chief of Naval Education and Training (CNET)

CNET administers the MMR, USNR Midshipman Program. Those duties include functions such as processing applications for the Midshipman Program and processing commissions for Midshipman Program and Direct Commission applicants. CNET also maintains the Departments of Naval Science at the various maritime schools.

c. Commander, Naval Surface Reserve Force (CNSRF) (N14)

CNSRF (N14) is the MMR Program Manager. Located in New Orleans, this office serves as the point of contact for all MMIRRG Officers. N14 assigns training for the MMIRRG as needed and assigns contributory support as requested by active duty commands. The office coordinates and performs numerous reserve and administrative functions for the MMIRRG. CNSRF (N14) is responsible for maintaining the MMIRRG database that tracks and monitors the training accomplished and the performance of MMIRRG Officers. Also, they monitor the fulfillment of Training and Service Agreements for officers who previously participated in the Midshipmen Program, and they report the status to MARAD.

d. Commander, Military Sealift Command (N00R)

MSC (N00R) is the program's technical sponsor. MSC assists CNSRF (N14) and other commands as appropriate in support of the management and administration of the program. They assist in SELRES billet identification and ensure that program technical training requirements are met.

e. Maritime Administration

MARAD monitors compliance with the MARAD SOC. If an officer is noncompliant, they nominate him or her for involuntary active duty (enlisted status). They also provide mobilization training to MMROCH SELRES that pertains to MARAD.

F. MMIRRG

Since MMIRRG officers are responsible for the sea mission for the MMR Program, they will be the primary group affected if a dual USMS/MMR Program is established in order to crew RRF vessels during a contingency. In order to obtain a basic understanding or “as is” picture of the MMIRRG, training, mobilization, and manpower issues must be discussed.

1. Training

The mission of a MMIRRG Officer is to operate merchant ships as naval and military auxiliaries. Because their mission is at sea, these officers must comply with training requirements in addition to maintaining an USCG license. Officers receive training in naval regulations, naval operations such as amphibious operations and underway replenishment, damage control, firefighting, and in maritime-related areas such as MARAD’s role as National Shipping Authority and MSC operations. Additionally, MMIRRG officers receive focused training in various areas depending on their designator. Deck Officers require naval tactics, communications, and security procedures. Engineering Officers require naval repair and logistics operations training, and Communication Officers require training in naval communications and security procedures.

One type of training requirement or qualification that has recently become an issue for the MMIRRG is Standards of Training, Certification, and Watchkeeping (STCW). The purpose of STCW is to ensure safer seas, conserve the marine environment, and help improve the competitiveness of the U.S. Maritime Industry. STCW is required for all present and future mariners to sail (on commercial vessels)

across the boundary lines of the United States into International Waters. (MMR Newsletter 2000) STCW can be obtained by taking USCG courses or through demonstration of skills before a Designated Examiner.

Although having a STCW qualification is not required be in the MMIRRG, these officers are encouraged and provided AT opportunities to attend the required courses needed to obtain a STCW qualification. (McFadden e-mail 2001) STCW has an impact not only on MMIRRG officers, but also on every licensed and unlicensed mariner who sails in international waters. This impact, and an in-depth discussion of STCW, will be provided in section H of this chapter.

2. Mobilization

In the event of a contingency or national emergency, the mobilization policy for MMIRRG Officers is dependent on their status. Decisions as to what officers are mobilized and what billets they would fill have to be decided at the time of mobilization since MMIRRG officers do not belong to Reserve Units and have no billet description or assignment. There are two categories: afloat and ashore. The policy for mobilization is:

Afloat: MMIRRG officers employed in a licensed position at sea aboard a United States flag vessel or a foreign flag vessel under "effective United States control" (EUSC), or between assignments, will be mobilized only if there is an urgent and specific need for their services. Their intended role is to serve aboard United States merchant ships in a civilian status. As a result of their naval training, these officers will be qualified to serve as naval liaison officers for their own vessels whenever naval and merchant ships interact.

Ashore: MMIRRG officers not serving at sea on mobilization day may be mobilized to Navy commands as required to fulfill national emergency requirements. (MMR Handbook 2000)

3. MMIRRG Population

As of 15 March 2001, there were over 2300 Officers in the MMIRRG. Table 1 shows a breakdown of qualified Deck Officers by Navy rank and highest USCG license qualification. Table 2 provides the same thing for Engineering Officers and Table 3 for Radio Officers. There is currently no goal or required number of each rank, designator, or USCG license in the MMIRRG program. The total number of MMIRRG officers results from the number of affiliations from the various sources and by the number of participants that remain in the program after their eight-year commitment. There is no minimum or maximum number of program participants. Additionally, there is a rough but not a direct relationship to a member's rank and his or her USCG license/highest merchant mariner qualification.

It should be noted that actual program numbers fluctuate, especially when a USMMA class graduates. It is also important to understand the general makeup of this program and where these officers are employed because their status determines mobilization actions as well as their potential availability for service on board RRF vessels, whether as civilians or in their military capacity. Over 80 percent of MMIRRG officers are either Third Mates or Third Assistants, the most junior officer rank. Of these approximately 1900 officers, only 22 percent or 418 officers are employed at sea. Also, approximately 30 percent of all MMIRRG officers are employed afloat, 14 percent are employed ashore in the maritime industry, 15 percent are employed in a non-maritime industry and the status of 37 percent was unknown. (MMR Newsletter, 1999)

	Master	Chief Mate	2nd Mate	3rd Mate
Ensign	2	1	4	267
LTJG	5	4	9	234
LT	43	37	44	343
LCDR	43	16	11	46
CDR	37	10	4	19
CAPT	30	2	0	2
TOTALS	160	70	72	911

Table 1. Breakdown of MMIRRG Qualified Deck Officers by Rank and License.

	Chief Engineer	1st Assistant	2nd Assistant	3rd Assistant
Ensign	0	1	6	225
LTJG	2	3	7	249
LT	18	23	43	384
LCDR	12	11	9	66
CDR	16	4	3	15
CAPT	5	0	0	1
TOTALS	53	42	68	940

Table 2. Breakdown of MMIRRG Qualified Engineering Officers by Rank and License.

	Radio
Ensign	1
LTJG	0
LT	4
LCDR	1
CDR	2
CAPT	1
TOTALS	9

Table 3. Breakdown of MMIRRG Qualified Radio Officers by Rank and License.

G. UNITED STATES MARITIME SERVICE (USMS)

Section 1306 of the Merchant Marine Act of 1936 provides the legal authority to establish a United States Maritime Service. Section 1306 states:

(a) Establishment and maintenance. The Secretary [of Transportation] may establish and maintain a voluntary organization for the training of citizens of the United States to serve on Merchant Marine vessels of the United States to be known as the **United States Maritime Service**.

(b) Enrollment; compensation; course of study and periods of training; uniforms. The Secretary may determine the number of individuals to be enrolled for training and reserve purposes in such service, to fix the rates of pay and allowances of such individuals without regard to provisions of chapter 51 and subchapter III of chapter 53 of title 5, United States Code (relating to classification and General Schedule pay rates), to prescribe the uniform of such service and the rules governing the wearing and furnishing of such uniform.

(c) Ranks, grades, and ratings same as for United States Coast Guard. The ranks, grades, and ratings for personnel of the United States Maritime Service shall be the same as... for the personnel of the United States Coast Guard."

President Franklin D. Roosevelt first established the USMS in 1938 in order to train the men and women needed to operate the 5000 government cargo ships used in World War II. The Coast Guard initially controlled the USMS Program but later transferred control to the Navy. In 1938, 37 recruiting offices were established throughout the U.S, with several being located next to Navy or Coast Guard Recruiting Offices. Many of the men and women who initially tried to join the Navy were sent to the USMS by those same Navy or Coast Guard recruiters who stated, "That's where your service is needed." (USMM, 2000) This was done because the demand for mariners to crew the new Liberty ships at that time far exceeded the needs for additional personnel in the Navy. (Seiberlich, 2001)

In addition to the recruiting offices that were established, an extensive training program and infrastructure was created. Over 250,000 recruits were trained as mariners, both licensed and unlicensed, for the war. (USMM, 2000) Over ten basic and advanced training sites were built throughout the U.S., the largest being the base at Sheepshead Bay, New York.

The USMS was officially disbanded in 1954 but the law still allows MARAD to reestablish the USMS at any time. Despite being disestablished, midshipmen and faculty of the US Merchant Marine Academy are enrolled in the USMS, though this enrolment generally is viewed as being figurative. For example, the superintendent of USMMA holds the rank of Rear Admiral USMS) and several instructors hold the rank of Captain (USMS). Also, an important historical note needs to be mentioned since the reestablishment of a USMS is being discussed. The USMS was a uniformed, official U.S. Government organization, yet its participants did not receive veteran status, while other organizations (some contracted), such as the WASPs, did. If the USMS is used, issues such as veteran status will need to be addressed to prevent the bitterness that some USMS members still feel today. (USMM 2000)

The law provides MARAD great flexibility as to how a USMS program could be developed to serve as a backup mariner pool for contingency crewing. However, it is difficult to copy how the USMS was used during WWII since modern day use would be different (supplementary instead of a primary manning pool) and the draft was in effect during that time period as well.

H. CURRENT INITIATIVES AND PROPOSALS AFFECTING CREATION OF A DUAL OR STAND-ALONE USMS POOL

Using the USMS concept is just one of several ways to help accomplish “assured access” to mariners for crewing RRF vessels during a contingency. There are several other initiatives, studies, and proposals currently being pursued that, if implemented, could help accomplish “assured access” as well. Also, some of these initiatives could significantly impact how a stand-alone or dual USMS/MMR program is established, or if either program needs to be established at all. It is therefore important to know what these initiatives are and to understand their potential impact on the creation of a stand-alone USMS program or a dual USMS/MMR program.

1. STCW

STCW stands for Standards of Training, Certification and Watch-keeping for Seafarers. STCW first came into being in July 1978 when the International Maritime Organization (IMO), because of the lack of international standards, wrote and adopted the original STCW requirements now referred to as STCW 78. (MEBA 2001) The U.S. didn't start to issue STCW 78 endorsements until 1995. Due to several high profile maritime casualties, a review of STCW 78 was initiated in 1992. By 1995, STCW 78 was significantly revised to incorporate “added significant requirements for formal training as well as requirements for assessments of a mariner's practical skills through demonstrations of competence.” (USCG 2000)

STCW 95 entered into force on February 1, 1997. The U.S. has a five-year implementation period that expires January 31, 2002. Beginning on February 1, 2002, all seafarers and ship companies must be in full compliance with STCW 95. (USCG-1 2000) The date of February 1, 2002 is very significant because mariners holding STCW 78

endorsements can continue to sail only up to this date. Afterwards, STCW 95 endorsements will be the only ones recognized by the USCG. Since the February 2002 date is quickly approaching, most discussions, including this thesis, focus on the impact of, and requirements for, STCW 95, not STCW 78.

STCW 95 is primarily a document that regulates international shipping crews; therefore, it does not apply to U.S. mariners sailing in domestic waters. STCW 95 could have a major impact on mariners used to crew RRF vessels because the RRF mission requires sailing in international waters. However, although it is MARAD policy to have mariners crewing RRF vessels to have their STCW qualifications, the STCW convention excludes government vessels.

STCW 95 is applicable to almost every mariner who sails on board a RRF ship. USCG Navigation and Vessel Inspection Circular No.6-00 states:

The only mariners required to hold an STCW form are the master and chief engineer, deck and engineering officers in charge of watches, rating forming parts of those watches, personnel who are serving in positions requiring proficiency in survival craft, and certain personnel with duties relating to radio operations. Other mariners, typically members of the steward's department and day-working deck and engineering personnel, are not required to hold the STCW form.

a. STCW 95 Training and USMS Pool Impact

Licensed and unlicensed mariners are required to complete various training to obtain their STCW 95 endorsement. While some training, like Advanced Firefighting, Basic Safety Training (BST), and Survival Craft and Rescue Boat Training is required for most seafarers, other training depends on the type and configuration of the vessel, and the specific classification or category of the individual mariner (e.g., Deck or Engineering, licensed or unlicensed, special billet designation like medical care

provider). If a stand-alone USMS or dual USMS/MMR pool is created, the STCW 95 training requirements should be incorporated into the program's comprehensive training plan.

STCW 95 could have an impact on the availability of the non-actively sailing or domestic water sailing mariner pool. Those individuals who were relied upon to crew RRF vessels during Desert Shield/Storm will probably not have their STCW 95 endorsements needed for the next contingency. This also applies to mariners who have retired or stopped actively sailing since the war up to the end of 2001. Mariners who actively sail after February 2002 will have the required STCW 95 endorsements and therefore would technically be qualified to sail on RRF vessels. Since this is the target group to form a stand-alone USMS pool, STCW 95 impacts which mariners are targeted for participation in the program, the incentives needed to attract these individuals, training programs, and the overall program cost.

2. National Defense Transportation Association (NDTA) Manning Subcommittee

The NDTA Military Sealift Committee formed a subcommittee on May 11, 1999 to "Assess our Nation's ability to meet the crewing demand required to support a National Sealift Mobilization." (NDTA 2001) The subcommittee established a mobilization crewing base from Desert Shield/Storm in 1990, and then determined the impact of the changes from that time on the mobilization crewing base needed to support a mobilization in 2002 and beyond. Major issues such as a shrinking U.S. flag fleet, new STCW training requirements, and a different social and economic environment were addressed. The subcommittee concluded, "there is a crewing issue." (NDTA 2001) The

subcommittee also proposed several courses of action to help ensure National Mobilization needs can be met. Those resolutions and their status include:

a. Union Pooling Agreement

A union pooling agreement was proposed to enable a union to obtain mariners from another union if they cannot fill a RRF crew position from their membership. The unions have agreed to support pooling.

b. Labor Rate Adjustments

The committee recommended standardizing the FSS and RRF labor rates for ROS vessels to prevent mariners from switching from FSS vessels with lower rates to RRF vessels with higher rates. This recommendation was adopted, however the LMSR rates that are lower have yet to be raised. Also, it was recommended to raise crew labor rates in general to be more competitive. Labor rates have increased since the recommendation.

c. Increases to the Licensed Pool

To increase the licensed mariner pool, the NDTA recommended that MARAD no longer give blanket waivers to the at-sea obligation to USMMA or SIP recipients. MARAD agreed and waivers are now considered on a case-by-case basis. This action should result in more graduates taking at-sea positions. Additionally, a linked recommendation to prevent granting waivers is to place graduates in a queue if there are not a sufficient number of sea going billets at graduation time. Graduates would join this “pool” and serve as a Junior Third on a designated ship until a permanent position becomes available. At that time, the graduate would join a union and take the job.

d. Increase to Unlicensed Pool

The subcommittee recommended the establishment of a 200-billet apprentice program for entry level ABs. It is not in place yet but MARAD and one labor union are currently working through some Department of Labor regulations to implement this program. MARAD supports this program.

e. Counteract STCW Impact

The merchant mariners that sail on the Great Lakes, known as "Lakers," do not need to be STCW qualified. These Lakers played an important role in helping to achieve full manning on RRF vessels during Desert Shield/Storm. With STCW taking full effect in February 2002, this valuable mariner source may not be available for future contingencies. The NDTA has suggested paying each Laker an incentive bonus to obtain an STCW qualification. Also, the subcommittee recommended the development of a long-range STCW training plan targeting shore side personnel. Similar to the Lakers recommendation, the shoreside program would use incentives to encourage this pool of mariners to obtain their STCW qualification and therefore potentially be available for a mobilization.

f. Addition of Masters to RRF ROS Crews

A RRF ROS crew does not have a Master billet. The NDTA recommended adding a Master to the RRF ROS crews similar to that on MSC's FSS and LMSR vessels. Besides creating a new full-time position on these RRF vessels, the measure would ensure the person in charge is available and familiar with the ship from the start of an activation.

3. Memorandum of Understanding (MOU) for MMR Officer Access

A MOU is currently being developed between the Navy, on behalf of DoD, and MARAD, on behalf of DOT. This MOU would allow MMR officers to be recalled/mobilized (in their military capacity) to supplement crewing U.S. Government vessels during a national emergency as a last resort. The MOU describes MMR mobilization responsibilities, procedures, and principles. Specifics of the MOU cannot be provided here, because the MOU is still in draft form and that was part of the agreement made to obtain this document. However, if this agreement is put into effect, it could negate the need for or benefits achieved from the development of a dual USMS/MMR Program.

4. MMR Program Staff Study

OPNAV N42 is currently conducting a staff study of the MMR Program as part of the Merchant Marine Manning Integrated Process Team established in 14 April 2000. A complete program review is being conducted with the major areas of emphasis being: availability of MMR members for emergency manning, desired skills, and mobilization billets. (MMMIPT 2000) Completion of the study is on hold until final resolution is reached on the MOU mentioned in the previous section. (McFadden 2001)

5. MARAD Mariner Survey

MARAD has asked the Bureau of Transportation Statistics to conduct a survey from a statistical sampling of the mariner pool from the Coast Guard database. This survey sampling will help determine the probability of mariner availability, their willingness to meet contingency crewing requirements, training background, completion/adherence to STCW 95, current sailing employment, and to verify contact information about them in the USCG's database/records. Estimated completion date for

the survey is July 2001. Survey results may or may not indicate that there are a sufficient number of mariners available with the correct ratings/positions and skills needed during a contingency. Unfavorable survey results could result in the pursuit or enactment of some of the various actions previously discussed, just as favorable results may result in no action being taken. This will establish a good benchmark on mariner availability and willingness to support sealift ships in time of emergency.

6. Exercise BREAKOUT 01

MARAD's Office of Ship Operation conducted BREAKOUT 01 from 16-27 April 2001. This exercise simulated the simultaneous activation of all RRF vessels. A Quick-Look Report was issued 4 May 2001 with a detailed report to be issued 26 May 2001. (Lockland, 2001)

A total of 63 ships was available for activation at the start of the exercise. MARAD notified the various Ship Managers who then contacted the labor unions to obtain qualified mariners not sailing and available for this exercise. Names of 1570 mariners were provided for the 63 ships, resulting in 100 percent manning and all ships manned within their required activation times. MARAD used the crew lists to verify that mariners were indeed "ready, willing and able" to sail on their assigned RRF ship. (Lockland, 2001) Over 1200 phone calls were made resulting in 32 percent of the mariners directly contacted. However, of the information on the mariners provided, the contact phone numbers had numerous omissions. In the case of MARAD's Western Region, over 25 percent of the mariners that MARAD attempted to contact had incorrect or disconnected phone numbers. (Blake, 2001) Therefore, while the crew lists were received in a timely manner and resulted in 100 percent manning, the significant problem

of incorrect contact phone numbers makes it is difficult to truly state one way or another if there would be a crewing shortage had this been a genuine mobilization.

I. CHAPTER SUMMARY

In this chapter, an overview of strategic sealift was provided. This included a description of the U.S. government vessels and commercial ships used to move material, and the various programs the government uses to secure these assets. It also provided background information on the RRF, the MMR Program, and the USMS. Finally, it presented the current initiatives and proposals that could affect the creation of a dual or stand-alone USMS program and also the U.S. Merchant Marine in general. It is important to have a basic understanding on how strategic sealift is structured and operates before a new concept like the USMS can be discussed or developed.

The next chapter contains the analysis of the data obtained from the structured interviews. The results will then be used to determine which approach should be taken in the development of a backup pool of mariners, and how these new program(s) should be designed.

III. METHODOLOGY

A. DATA COLLECTION METHODS

A literature review and informal interviews were used to obtain the background information for this thesis. Fourteen structured interviews were used to collect the data to answer the research questions. Of the 14, 12 were done via phone, and two in person. All interviews were recorded and transcribed verbatim. A fifteenth interview was conducted with an individual representing ship managers participating in the VISA program. Since the purpose of the interview was specifically to obtain perspective from that segment of the maritime industry on the development of an USMS backup mariner pool, a structured interview was not conducted.

Interviewees were selected based on their expertise in the subject and also to ensure adequate representation from each of the major stakeholders within the maritime industry that would impact, or be impacted, by the creation of a program based on the USMS concept. The interviewee selection process started with Captain Ron McFadden of OPNAV N42 and Mr. Kevin Tokarski of MARAD providing the names of three to four individuals who were the initial people contacted and interviewed. They were asked, or suggested on their own, additional people to interview who were knowledgeable on the subject and/or could represent (speak for) a given organization or segment of the industry. Most of the people interviewed were recommended by several individuals as key people whose opinions should be included in this thesis.

The information and/or quotes obtained from the individuals interviewed for this thesis will not be linked to a given individual, however, in order to put the source of the

data in the proper context, it is important to represent their backgrounds, current or past positions, and what segments of the industry they represent. It is also important to discuss how representative these individuals are of their respective organizations. The interviewees represented the following segments of the maritime industry:

RRF Ship Managers: Individuals from two of the ship managers out of a possible nine were interviewed. Both are highly respected individuals who hold senior positions in their companies. They are both intimately familiar with the subject and are good representatives for all RRF ship managers.

Licensed Unions: Two individuals, one representing the International Organization of Masters, Mates, and Pilots (MMP) and one representing the American Maritime Officers (AMO), were interviewed. There are three unions that provide licensed mariners for RRF vessels, making the inputs from these individuals highly representative of this community.

Unlicensed Unions: One senior official from the Seafarers International Union (SIU) was interviewed. The SIU is the major provider of unlicensed mariners for RRF vessels. The inputs from this individual were highly representative of the views of his company and all unlicensed unions.

OPNAV N42: One current senior military officer at OPNAV N42 and two senior military officers who previously served there were interviewed.

MARAD: Three of the individuals interviewed were current MARAD employees. One is a senior official in the National Security Affairs Division that is responsible for the RRF Program, one is an employee at MARAD's Western Regional

Office, and one is MARAD's liaison with USTRANSCOM on the RRF Program. Their inputs are representative of the various levels of involvement in this issue.

MSC: A senior military officer who provides technical expertise and guidance for the MMR Program was interviewed. Also, one of the individuals interviewed was a Commanding Officer of a MSC reserve unit. The inputs received from both individuals were their personal perspectives and were not necessarily representative of MSC leadership.

USTRANSCOM: One individual interviewed was a member of USTRANSCOM's Strategic Sealift Division. His views may or may not represent senior leadership of that organization.

MMR Program: The current MMR Program Manager was interviewed. Also, two individuals were current MMR members and three individuals who had retired from the MMR were interviewed.

USMMA/USMS: One individual interviewed was an instructor from the USMMA who also holds the rank of Captain in the USMS. This individual was chosen based on his position at the USMMA and for his extensive knowledge and experience with the MMR Program.

NDTA Manning Subcommittee Members: Four of the individuals interviewed are involved in a high-level subcommittee that was assigned to "Assess our Nation's ability to meet the crewing demand required to support a National Sealift Mobilization."

Commercial Ship Managers/VISA Program: One individual was interviewed from a commercial ship manager company that manages ships solely in the VISA

program and not in the RRF Program. There is a total of 47 ship managers involved in the VISA program. The individual interviewed was highly knowledgeable, well known, and respected. His inputs were representative of VISA program participants.

It is important to note that if one added the total number of individuals discussed in the eleven categories listed above, the number is far greater than the total number of people interviewed (15). This is because almost every individual is or has been involved in more than category. That was a major benefit for this research because almost all of the individuals interviewed understood the issues from both the military and commercial perspectives.

B. INTERVIEW PROTOCOLS

The researcher used a structured interview approach preceded by contacting each prospective interviewee by phone to describe the purpose of the thesis and to request an interview. No one declined to be interviewed. Once contacted, each interviewee was provided with the interview protocol that contained more specific information on the purpose of the thesis and the basic research questions and format that would be followed. Appendix C contains the interview protocol that was provided. During the actual interview, the interview protocol in Appendix D was used. The interview protocol in Appendix D was not provided because it contained the probe questions and other specific questions that could have influenced the interviewee's input.

The interview protocol followed the guidance provided in Rubin and Rubin (1995) that suggested using open-ended questions and when necessary, and follow-on probe questions to prompt the interviewee or clarify answers. Each interviewee was

taken through the question with reference to the development of a stand-alone pool followed by the same question for the development of a dual USMS/MMR Program.

C. DATA ANALYSIS

Data analysis was done on over 200 pages of transcribed interviews that resulted from the 14 interviews. The process of "coding" was used to group the interviewees' responses into categories. (Rubin and Rubin, 1995) The responses were grouped accordingly to how the interviewees answered the primary and secondary thesis questions for both the development of a stand-alone USMS Program and a dual USMS/MMR Program. Chapter IV describes the majority opinion/input for a given question along with supporting quotes. Several minority opinions for each question are provided as well.

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IV. ANALYSIS

A. OVERVIEW

The contents of the structured interviews were analyzed to answer the primary research question and the seven secondary research questions. Each secondary research question was asked as it applied to a stand-alone USMS Program and to a dual USMS/MMR Program. This chapter presents the majority opinions/inputs for each question. Several minority opinions for each question are provided as well. The information is grouped by the two USMS options, not by research question. Additionally, each interviewee was assigned a number (e.g., Interviewee One) to prevent association of any information or quote with a specific individual.

B. STAND-ALONE PROGRAM

1. What are the Major Advantages?

The interviewees suggested several advantages for the RRF and the maritime industry in the establishment of an USMS stand-alone pool. One of the major advantages offered was that a stand-alone pool could provide a back-up pool of experienced mariners available to crew RRF vessels. This pool could provide quick and guaranteed access to qualified mariners. It could also be designed to target specific rates where shortages exist, or skill sets unique to RRF vessels. The other major advantage is that this pool could increase the size of the non-sailing pool of mariners available for contingency crewing by providing an incentive (training and monetary) for mariners to keep their licenses current. The pool could help counteract the impact that STCW 95 requirements are having on the maritime industry. Some of the specific comments on this topic are provided below.

Interviewee Seven:

I see it as filling a gap that is becoming more and more apparent. I know they are doing manning studies...it is a big concern here at TRANSCOM...does MARAD have the ability to man the organic lift? Something has to be done sooner instead of later. It is an advantage because at least it is another option to take. It may not be the preferred option...more growth in the current maritime industry sailing U.S. flag ships...but as a backup it is a good alternative worth pursuing and having it on the shelf to activate.

Interviewee One:

Just guaranteed access to mariners that we are going to need in some kind of contingency. In particular the ability to contact people quickly because there are really two different issues. One is do we have the right number of mariners and number two is how fast can we get them.

Interviewee Eleven believed this program could address the decrease in the availability of non-sailing mariners since the Persian Gulf War because of STCW 95 requirements:

First of all...we have the pool that is here today that will change effective February 2002 with the last implementation phase of STCW...my concern is...in general...when you go back to the Persian Gulf War, which I went through...but with more ships operating in the fleet...we were able to draw on the retiree pool who went to sea and supported us. The problem coming in February 2002...that people like that, that pool that is not sailing today...is basically gone from the standpoint that none of them will be STCW trained...and basically it takes a lot of hours of training. Where is the incentive for these mariners to be trained, taking into account their time and their costs. That is the issue...whether you call it a stand-alone pool or what you call it...we also drew on the Lakers the last time...and the Lakers will not be STCW trained either. How are we going to have the individuals trained to make them available to just equalize the ability and capability that we had during the Gulf War that we are losing...How do we get many of those in that so-called pool STCW trained and available to serve if the bell rings?

Interviewee Eleven went on to say:

...If you can get them trained so they are available, then that does a great service because today...as far as February 2002, there are going to be

many of those people that are not going to renew their licenses, which they could automatically do in the past...or if they do...won't have the credentials to sail without a waiver.

Other comments emphasized the advantages of the civilian aspect of a stand-alone pool. Since the USMS it is a civilian program, there is no Navy influence or confusion of roles when compared to a dual USMS/MMR program. Some interviewees also felt a stand-alone program could provide an excellent "home" for individuals who had finished their USNR/MMR obligation, were no longer qualified to be in the MMR, or did not want to deal with the regulations and structure associated with the Naval Reserve.

Interviewee Five:

The biggest advantage I see is that there wouldn't be a confusion of roles...the USMS would be there for providing civilian manpower in an emergency. The problem we have with the MMR is that they are first and foremost naval reservists. Naval personnel do not crew the ships we have in the RRF or in the MSC billets and...there would be a clear distinction of roles where the USMS is simple a reserve pool of commercial mariners...civilian in nature...civilian in purpose and they would simply be there to fill the shortfalls that may exist in activating our organic ships. That is the principal advantage.

Interviewee Two:

I think you can keep people who came in and did their eight years in the MMR; those are the guys to attract to stay in the USMS. That would be okay because we do not keep enough people actively involved because they do not want to deal with the Navy part of it. Plus, to get a retirement has a lot of obstacles. In a USMS program, you would not have to worry about rank and could stay in the USMS and not worry about promotion or the reserve game.

Interviewees also stated that being able to have unlicensed mariners in a stand-alone pool was a key advantage. Other advantages offered include: provides a good database on mariners and formalizes the retiree pool, participants are volunteers, and a USMS pool could entice non-actively sailing mariners to rejoin the active sailing pool.

Only interviewee thirteen stated that he could find no advantages to the establishment of a stand-alone USMS program.

Interviewee Fourteen felt a stand-alone USMS program might stimulate a mariner's interest to actively sail:

One of the other advantages is that if you have people in this pool and they are not sailing on a regular basis in the maritime industry and they get their feet wet, it might draw them back into the maritime industry as well, thereby reducing the shortage

2. What are the Major Disadvantages?

Most of the disadvantages mentioned focused more on the creation of the program rather than attributes of the program itself. They could almost be considered obstacles instead of disadvantages. The major issue, without a doubt, expressed specifically by twelve of the fourteen interviewees, dealt with costs. Most felt the costs could be substantial and obtaining funding difficult, depending on how the program was specifically designed. Costs for program set up, administration, recruiting, training, travel, and benefits for participants were issues offered. The second most frequently mentioned disadvantage was that this would be a new program that has never existed before, with no current infrastructure within MARAD.

Interviewee Ten:

I don't think there are disadvantages from an operational point of view. But where you will find a detrimental consideration is the money. There is going to have to be some type of incentive to get these people in the program. There is going to be some type of administration of the program. Now it might be able to be self-administered and use people in the program to administer it, but still you have a cost involved. You also have a reluctance of some established bureaucracy in Washington, DC to see what they think is a rival or additional bureaucracy being established. But money is going to be the greatest obstacle. How much it will cost depends on how you set it up, but there definitely will be a cost.

Interviewee Five:

The disadvantage of the USMS would be that with the exception of the WWII scenario where you had a need for mariners...it wasn't a reserve pool of mariners in that concept...they were the main line...we were training them and sending them off to sea. This would be the first time an identified reserve pool of mariners would have to be developed...conceived of...there would have to be a whole training regimen developed, which I think we can do...I think it is all doable...there would be a substantial amount of money.

Interviewee Thirteen believed that, under no situation, that this program would be established because of its tremendous cost:

Whether I see any advantages...it will not happen because of the cost. I think I told you that I was involved in a study about 15 years ago and the cost was about 69 million dollars to establish it...and I'm not trying to be an obstructionist, I'm just trying to be pragmatic...and where would that money come from?

Interviewee Four

There is currently no infrastructure in MARAD to handle such a program. There is nothing like the Navy reserve training and administrative infrastructure such as reserve centers, computer systems, accounting, etc. They would all have to be started from scratch from an administrative standpoint. There would be some initial confusion as to what role the USMS would play.

Some of the disadvantages stated by three individuals were concerned with union perceptions of this program if members are non-union or with potential pay issues. Two individuals felt that a stand-alone program could provide a false sense of security with regard to contingency crewing. Also, three interviewees were concerned about either the qualification level of pool members since they are not actively sailing, or an individual's physical qualification since one of the targeted groups is retired mariners.

Interviewee Fourteen:

One of the biggest disadvantages is getting regular exposure to maritime

vessels...they are going to get out there and not have a clue what to do because technology changes every month now.

Interviewee Seven:

It may give some false sense of security as to other programs that should be looked at in terms of helping the maritime industry...in other words, if we run in to it, we have it covered because we have this pool of mariners that we can rely upon to go to...so we don't have to go ahead and look at tax incentives for the merchant marine. Another disadvantage is you are going to possibly have some pay issues. If a USMS guy belongs to a different union, there may be some issues there, but those should be overcome.

Interviewee Five:

The purpose of our program is to keep a viable U.S. Merchant Marine and to maintain an adequate number of commercial civilian mariners available in the event of a contingency. If we had a reserve program that artificially provided that at some significant expense, I'm afraid that it would probably jeopardize one of the underpinnings of why we have federal assistance programs to support the merchant marine.

We would probably be reduced to a more artificial structure whereby we don't really have any of our real mariners or fewer of our real mariners in commercial service...we would rely solely on a so-called reserve pool of mariners that are not hands on in the industry. The other down side is what I just said...they are not hands on in the industry...they aren't actually active seamen perhaps...I think you probably lose something by having people that are strictly reservist vice those active in the commercial industry.

3. What Incentives or Assurances Are Needed for Affected Organizations to Support/Participate in the Program?

The purpose of this question was to determine the concerns an individual and/or his organization had about the creation of a stand-alone program, and based on those concerns, what incentives or assurances were needed to achieve buy-in or support. Most of answers focused on the status of the individual mariners. Interviewees wanted assurances that pool participants were properly trained and qualified to perform the RRF mission as well as available and prepared for a short notice activation.

Interviewee Eleven agreed with the following statement made by the author:

So one of the assurances is that whomever these people are...it is known that they are ready to go to sea...they are qualified and their training is up to date...so that if you had to call them today they would be ready to go, in theory.

Interviewee Eight:

One assurance would be is that the person would be available to sail...that is the main crutch right there...the individual that you identify must be available to sail.

Four individuals stated they did not have concerns or need assurances, but supported the program because it contributed to ensuring "assured access" to mariners during a contingency.

Interviewee Seven:

TRANSCOM is really concerned about guaranteed access. They want to make sure they have access to ships and ship's crews. From a TRANSCOM point of view, they are interested in organic lift, only. They would want another type of option out there. They are building ships, but the manning is becoming a bigger issue to the ships out there. I cannot see where they would have any objection to having a program that is either stand-alone or combined.

Interviewee Two:

None. It doesn't change what I do. If you create it, it helps, but it doesn't hinder me if you don't. In a way, I can only benefit from it.

One individual was concerned that this type of program could draw out actively sailing, unlicensed mariners, thereby reducing the size of the active pool. Other noteworthy answers include: articulate the mission, ensure the USMS program is on equal footing and has the same status as any other reserve program, and to formally include ship managers in the process.

Interviewee Fourteen:

The only concern that we probably would have is that there are a lot of people out there that would like to sail on a part-time basis, but have to sail on a full-time basis because there is no such thing as a part-time basis for them now...the only concern that we would have is that it might draw active mariners out of the industry.

We want people to sail eight months a year and if there is a way for them to maintain their licenses without having to do the required sea time...it might pull them out of the active pool and put them in another line of work.

Interviewee Ten:

I think you have to make the USMS reserve on equal footing with any of the other reserve programs in terms of pay, retirement benefits...not subject to the draft. You have to make sure they can interchange their civilian service in USMS with military service because most of them will have started out with some sort of reserve obligation...been on active duty for a few years...that longevity and retirement benefits must switch back and forth. This has to be a very fluid program. And all have dead ends because those people will say, "What is in it for me?"

4. What Incentives are Needed to Entice Individual Mariners to Join and Remain in the Program?

Each interviewee stated that incentives were key in attracting non-actively sailing mariners to this program. While merchant mariners as a group can be considered highly patriotic, it is unreasonable to expect any individual to join this type of program without some type of monetary compensation and/or benefits. Seven interviewees believed that mariners would volunteer if they were paid directly or the program paid for them to maintain their license, qualifications, and STCW 95 necessary to maintain an active license. These type of payments are similar to that received by naval reservists doing their annual training.

When Interviewee One was asked if paying for a mariner's qualifications, license, and STCW should be the minimum, he responded:

In fact that would be the minimum. An agreement for the stand-alone pool should be that once a year you do a minimum of two weeks and we pay for your travel, tuition, and whatever the standard is.

Interviewee Eight:

Offer them an incentive to keep their qualifications current...something like giving them free training...periodic training, or whatever it takes to keep their qualifications current at the expense of the government.

Interviewee Fourteen believed that paying program participants (when they are in a training or active USMS status) the same wage rate they typically receive when actively sailing under their license would be an excellent incentive to attract mariners to the program:

When they do their reserve duty, they have to be paid at the same rate they would be when sailing and holding that rating because that is going to attract people. You are not going to be able to give them a cadet rate. Would you leave home for seven dollars an hour just to keep a pool qualified?

The other type of incentive mentioned most often was some type of retirement program like a pension plan or 401(k). While interviewees believed retirement benefits would be a good enticement, five interviewees, although they could envision some type of pension plan, believed it must be limited or was a non-starter because of lack of funding or resistance to establishing long-range entitlements.

Interviewee Thirteen:

The incentives would be the same whether it is a stand-alone or a MMR program...the incentives would be some sort of remuneration and then at the end some form of retirement benefit that would be accrued to them after so many years in this reserve program...or setting up something similar to what they have in the MMR...after 20 or so years you would be entitled to certain benefits based on the amount of time you have contributed into it.

Interviewee Two:

They could have a separate program, say a 401(k) with matching funds, that is low cost to administer where mariners would earn by actively doing it [being in a training or sailing status].

Interviewee Nine:

I could envision one [benefit package or pension program]...but you are talking about establishing new entitlements. The Congress really balks at establishing new entitlements that must be paid by future Congresses. While this may not be a big program, it is another one, and that is how they view it.

The other individual incentive mentioned specifically by four interviewees and alluded to when discussing monetary incentives was meaningful training. A viable training program with access to courses and, even more importantly, to activated RRF vessels was key.

Interviewee Five provided this comment regarding training:

But the most important thing is that we have a training regime that is meaningful and hits the mark. To whatever extent that we identify a mission or a requirement, we develop training that will be effective...to the extent that we develop effective training, we will be able to recruit and retain people into this thing. The way I would imagine the USMS to work, is that it would be mandatory for some or all of the academy graduates...but in order to maintain an interest and in order to voluntarily keep people in the program beyond their service obligation, I think we would have to have meaningful training...if we don't interest the people and convey the message that it is important, meaningful, and serves a purpose, I'm not sure it will serve a purpose.

5. What Are the Training and Qualification Requirements?

Two specific questions were used to obtain answers for this research question. The first question asked what training opportunities and frequency the interviewee envisioned for USMS pool participants. The second question focused on how the interviewee would ensure that USMS members possessed and retained the skills, unique or otherwise, associated with operating RRF vessels. In terms of training opportunities

and frequency, every interviewee discussed the need for pool participants to train on ships, with the majority of that time spent underway. While most interviewees felt the training should be performed on RRF vessels, three others also mentioned the same type of training could be accomplished on commercial ships. The frequency of this training ranged from a high of four two-week periods per year to a minimum of two weeks a year. Two weeks per year, which is same time period a naval reservist performs per year on AT, was the most common answer.

Interviewee Five had the following views on the amount and type of training:

I think something similar to what we have in the reserves now. I think the two-week annual training and the monthly training is a tried and true formula, but I think the thing we need to do is to connect them to the ships...if we are talking about a USMS that is serving on MARAD's RRF ships or MSC's ships...I think we need to develop annual and monthly training that somehow allows them to obtain a familiarity with some of our platforms. It would be nice for members in the Charleston area...that the RRF ships in Charleston be the training platform. You try to tie their training to the ships in their local area if feasible. We are also going to be limited...we are not going to be taking ships out on weekends to train these guys...but I think if can develop training that is coordinated with activations, I think that will help us and provide meaningful training. The training should be tied directly to the programs that we expect these people to participate in...and much of that can be from the administrative side...that can be a little bit dry but there is a lot from the administrative side of what happens when you activate a ship and what the roles and responsibilities are and how they fold in and interact with the rest of the MSC operation.

Interviewee Fourteen

I would think they would have to go four times a year...every quarter would probably work...and it would have to be for two weeks...to put them on a ship for a weekend that doesn't go anywhere...there is no benefit to it. You have to go to a point A or point B and stand watches and do what is required...plus they need that to keep their license in force anyway...you have to maintain a certain amount of recency sea time to keep your license good now.

Interviewee Six

The best place to use them with whatever training period you come up with is on RRF vessels. MARAD is the keeper of the ships and USMS is within MARAD, so there is no problem of getting their own people on board to train them. And that is where you want them to get the training anyway...learn where the light switches are and how the cargo gear goes up and down, and the ramp, etc...so we are not screwing with them at the last minute to figure out if they know how to do it.

Interviewees stated that the necessary requirements for a mariner to maintain their license, including STCW 95, should be the minimum training requirements. Those requirements are already established and would only have to be incorporated into a comprehensive training plan. In addition, specific RRF requirements such as damage control and bridge training need to be incorporated into the training plan. In terms of the unique skill or qualifications unique to certain RRF vessels such as operating a steam plant or certain cargo handling gear, steam was the biggest concern to the interviewees. Most expressed the need to have a sufficient number of mariners in this pool with steam experience. Maintaining this level of expertise also required mariners to practice this skill at sea.

Interviewee Seven:

As far as the cargo handling, you can do it pier side...you can set up some AT or for the USMS just have them come out and use the cargo gear. And we do that with the Cargo Handling Battalions (CHBs) mainly on the crane ships. Same could be done with the breakbulks...it comes down to costs...how much bang for the buck...there will have to be some funding with those in the ROS and there would need to be some consideration with the ship managers that would have to support those operations.

Interviewee Thirteen

Right now, the STCW training specifies all the training you are going to require. The training that is unique to the DoD or RRF vessels is training that MARAD or DoD would have to pay for...right now the union pays

for that...for example we pay for small arms training, damage control training, and unique bridge team management, which you don't find on any commercial vessels.

Interviewee Eleven

I don't know if you can ensure that you have all the exact training you need. You have to have the requirements of STCW, small arms, firefighting training and things of that nature. There are fewer people with steam...it would be nice for the RRF since there is a lot of steam ships...the ROROs are diesel but the main ones are mainly steam. It would be good to get some of the steam operators because most of your newer ships are diesel in your present fleet...you don't have many of the steam...it would be nice to provide incentives to encourage the steam people to join the pool.

6. What Are the Sign Up and Obligation Requirements for Members Participating in the Program?

The overwhelming response given by nine interviewees was a five-year obligation period. Five years coincides with the renewal for a mariner's license and also the periodicity for a physical. Two interviewees suggested having a bonus tied to the length of obligation or when an individual reobligates.

Interviewee Seven:

Five years seems like a good time...it seems that is the way that things are typically in the government...that is a five-year program. If anyone wants to come in...and they can come in at any time...they would sign up for a five-year program...and they can renew after five years. If the stand-alone program is voluntary, a five-year obligation at least provides a planning tool...if you get someone only signed up for a couple of years...it is hard to count on them...administratively it will be a burden as well.

Interviewee Eleven:

I would say that if you are going to go into that pool, that means they have to provide training for you...that is five years...and then you need to be recertified at the end of five years anyway. So you might as well have the sign up and obligation for five years.

Interviewee Four suggested paying bonuses based on the length of obligation:

That makes sense [five years and tie it to their license]. I would tier it. If I was to sit down with a blank sheet of paper...if you obligate for three years you get 3000, if you obligate for five years, you get 6500 dollars, if seven years then 10,000 dollars (numbers are for example). The longer they obligate for, the greater the financial incentive. You will need to have some method to ensure that their license and physical health is kept up so that they could actually perform the job if called upon.

Two of the interviewees expressed concerns about enforcement of a given obligation made by a civilian mariner. If an individual signs up for a given period, then decides they no longer want to participate in the program or will not take a position on a RRF vessel during a contingency, what legal right does the government have to force that individual to comply with the agreement they signed?

Interviewee One:

The question then becomes if you have some type of emergency breakout and you need these people and someone says no. If they are USNR, we know exactly what we can do. Can the USMS do the same thing?

Interviewee Thirteen:

You can't...how are you going to require a guy to sign up for it...a guy is either going to want to sign up, then he will sign up for a year, or sign up for 60 days...I think you are going down a road that you don't want to go down...and then what happens when the guys says after three years "hell with you," what are you going to do...put the guy in jail?

7. What Organization(s) Should Manage the Program?

In response to what organization(s) should manage a stand-alone USMS program, all of the interviewees suggested that either MARAD should do it or should provide oversight. Almost all of the individuals felt that if MARAD was to actively manage the program, they need more manpower and infrastructure and could not accomplish it with

existing resources. MARAD would also need to ensure that adequate expertise/senior mariners are involved in the process.

Interviewee Twelve

I think that MARAD, under their training office, would have to do it. They would certainly have to be funded to do it. Right now, they are pretty tight on the people they have there.

Interviewee Seven

I think MARAD would be good for that...I don't know how many personnel would be involved in doing that...but I think MARAD would be a choice for that. That is what MARAD...National Security Directive 28...that is where MARAD is tasked by the White House to ensure there is adequate commercial sealift. I think that ties in nicely if we ran this program...to ensure there are enough mariners to go with that sealift.

Interviewee Ten:

I would not have it done by active duty Navy or non-experienced civilian mariners. By that I mean people who have actually sailed in command or been Chief Mates or Engineers...I am not talking about some guy at MARAD or MSC that happened to have graduated from a maritime academy 20 years ago and one time had a third mate's license. I'm talking about people at least as experienced or qualified as the people they are going to be recalling.

Interviewee Two was the first person to suggest that the shipping companies and the unions should manage a stand-alone USMS program and that MARAD would provide oversight. His reasoning was:

The shipping companies and unions should [manage the program] with oversight. There again, to do the training, pay for the training for the guy whose ship and union that he is to go on...that is another incentive for the union. If this guy is bounced against the Callahan as a MEBA guy, then when you pay for the training and his physical, do it at the union school...pay them for firefighting so they get a piece of the puzzle. They have to keep the guys training up. The guy who should arrange for the training should be the ship manager. We know who they are...I track their training...of course I will get a little fee for this...I'm not going to do it

for free...but it is all part of the contract. I tell Charlie to go to the MEBA School...do all your stuff...that gets you (MARAD) out of doing a big administrative thing...you just provide oversight. If you set up a big organization in MARAD to do this...why would you? I am already doing it because it is my responsibility when the guy gets to the ship that all of his paperwork is up to date.

After this interview, each subsequent interviewee was specifically asked for their thoughts on this idea.

Interviewee Eleven was concerned about how mariners would be allocated among the various ship managers if a shortage of mariners existed:

I guess if you had us try to do...between us and the unions...identify so many bodies...there would be an issue with each union as to how many they assign to ship manager X versus ship manager Y...and everybody would be short X amount of people or everybody is full.

Interviewee Five believed that ship managers could contribute to the management process:

I think MARAD would always have to do the administration. I think we could have it in the ship manager contract and be tasked with some training tasks or facilitating training tasks, but I think to expect the admin to be done by the ship managers would be a bad idea. I think you need to have a centrally coordinated administration of the program and I think having it in assorted ship managers would be dangerous

Interviewee Seven was a firm believer in less hierarchy and more power for front-line decision makers:

I could see...when we actually get to the point where we have to use this program...the more it can be streamlined...the less hierarchy the better...that is the whole purpose...to man the ships...the more it can be streamlined to get the power out to those in the field, the better...set up the program through MARAD and MARAD can delegate it down.

Interviewee Twelve:

Yes they [ship managers] could...you would have to have a discussion on

it but certainly it could be a way to do it. I think how well it would work would come out once you start talking to the ship managers.

Interviewee Fourteen was not in favor of ship manager involvement:

If you are going to leave it up to the ship managers to manage this thing...it will never happen. They are just overwhelmed with what they are doing now...it would have to be a separate office within MARAD and that would be their primary function...to manage and keep fully funded the reserve pool. They would have to act as recruiters and work to find the people. The ship managers don't have time...anyone that a ship manager recruits for a pool...they are going to try to put them on a ship.

Additionally, Interviewee Fourteen commented that it would be important for success of the program to have separate management for licensed and unlicensed participants. He stated:

If you are going to institute this and you are going to be using unlicensed mariners...you are going to have to have two different types of people running the two different pools...one for the licensed and one for the unlicensed...simply because it has traditionally been done that way. They are more comfortable with that. Unlicensed people understand their concerns and complaints and licensed people understand their concerns and complaints. That is why we don't crew a ship from top to bottom.

8. What are the Obstacles (Real or Perceived) in Using the USMS Concept?

This research question had two basic purposes. The first purpose was to identify the issues that could prevent the establishment of a stand-alone USMS program. The second purpose was to try to identify any rules, regulations, procedures, policies, and/or laws that would need to be changed or developed to establish this program. Identifying these potential obstacles and then properly addressing them in the development phase of the program should contribute to the program's successful implementation and ultimate acceptance.

As was the case when the interviewees were asked for program disadvantages, obtaining adequate funding was the primary obstacle provided. One of the reasons funding could be an issue relates to another obstacle the interviewees provided; this is a new program that has never been tried before. Several interviewees also believed that the unions could pose an obstacle to creating this program. However, the majority of interviewees believed that these obstacles could be counteracted by having sound justification for the need of the program and by involving the unions and ship managers in the development of this program.

Interviewee Five

The biggest one is the fact that we have never done it before...and the cost. I think the cost has been the one I have always heard about that...some people have put together some scenarios and the price tag is pretty staggering. I think we need to make the mission argument and to identify clearly the requirement that we are satisfying...I know of many, many good ideas that you could otherwise sell sometimes fall short because of funding...and that is a potential roadblock in anything we do.

Interviewee Fourteen:

Just ourselves...getting everybody to agree is the biggest obstacle you have...the people who are in this industry have to support it 100 percent. That is the only obstacle you have...you cannot get two maritime entities to agree on anything except that there is a shortage.

Interviewee Nine:

You must have a very well organized program. You have to call in both the operators and the unions...you set them down and say this is what we have to do in order to man these ships in a contingency. I have yet seen a time where companies will answer up to real needs properly described to them, and as long as it doesn't come out of their operating costs...as long as it get funded by the government, they will do it.

For the second aspect of the question that addressed the modification or creation of new laws, regulations, etc., the interviewees stated that there would be a need for

several actions to make a USMS program work. The Merchant Marine Act of 1936 and Title 46 of the Code of Federal Regulations were the two specific laws mentioned that would need to be modified. The issues that these new or modified laws or protocols need to address include: enforcement of program participants' requirements and obligations, recall protocols, and the program's relationship with the current RRF operations during peacetime and a contingency.

Interviewee One:

I suspect there is a substantial part of Title 46, the Code of Federal Regulations (CFR), to do a stand-alone. If you are going to do recoupment of an education investment, you are going to need legislation, which is going to end up in Title 46.

Interviewee Eight:

I don't know what could be put into place to guarantee that an individual will do what they say they are going to do when it comes to being part of that program. If there is any action that you could take against individuals that sign on for the program, something comes up, and they say they do not want to be part of the program any more...or whatever...there will probably have to be some laws put in place to guarantee once an individual signs up that he will do what he says he is going to do.

Interviewee Nine also added:

It is all there in the 36 Act, but you would have a lot of implementation rules to write.

Finally, Interviewee Six commented that it might be difficult finding enough unlicensed mariners for this type of backup pool because of the current difficulty in filling existing unlicensed sailing positions.

I know the unlicensed people are hurting for people right now...I don't think there are enough people around to either have a cadre or for someone to do something else.

C. DUAL USMS/MMR PROGRAM

1. What are the Major Advantages?

The number one advantage mentioned by six of the individuals was that the MMR program was already in existence. Interviewees felt that it made sense to leverage an existing program with an established system to administer, train, recall, recruit, track, and fund program participants. Also, because it already exists, it would be easier to develop with regard to developing new laws or legislation.

Interviewee One:

It would also make things like security clearances, up to secret level anyway, a whole lot easier then just by USMS alone...there is an existing bureaucracy to support the USNR. If, for example, you had an emergency manning crisis and you need to get people moving quickly, then an option becomes to just cut them AT orders to get them where they need to go and then get the recall orders to catch up with them.

Interviewee Ten:

The greatest advantage of using the MMR program is that it is already established. It has a lot of shortcomings but it already exists...you would not need new legislation...you wouldn't need much more than a MOU, but, and this is a personal view, to make the MMR work, you have to take it out from under the Navy's management by the TAR organization.

Interviewee Eight:

That [leveraging an existing program] would be a plus for a dual program...you have a lot of training things already established with the MMR program that could possibly cross over.

Two other advantages mentioned include the fact that MMR members are familiar with RRF vessels because of ATs done with MARAD, and also the potential for increased training for program participants because they could train as an USMS instead of a naval reservist.

One advantage that the researcher anticipated finding proved not to be true. By creating a dual USMS/MMR program, the advantage of recalling these MMR officers as civilians under their USCG license qualification was expected. This was not the case. Most interviewees did not have a problem with military officers serving on RRF vessels providing all other civilian mariner sources had been exhausted. Finally, one individual was completely against using MMR officers to crew RRF vessels in any situation.

2. What are the Major Disadvantages?

The key disadvantages for a dual USMS/MMR program dealt with potential differences between USMS goals and Navy goals for such a program. Disadvantages included: allegiance to crewing RRF vessels as civilians versus Navy mission requirements, mismatch between USMS requirements and naval reserve requirements necessary for proper career path progression, and funding arguments over which organization pays for what requirements.

Interviewee Seven

On the same token...as far as being a reservist...career path wise...you could get kind of screwed in that you are trying to be set up to be on an RRF ship and maybe it is not in your training plan or you are not checking the boxes in your reserve career. There could be a bit of conflict there.

If you had a good training plan put together to facilitate that...the guy is doing great and is getting great fitness reports for following the training plan and promoted. That is my reserve viewpoint of it. The other thing is...when you put a naval officer on the ship...I have run into before where there is a little bit of apprehension from the ship managers. Who is this guy? There has to be a clear communication with the ship managers in the case of the RRF ships as to what is being done.

Interviewee Two

Funds would be the primary one...if one created a shortage of funds from another area. It is important that the two work together vice separate.

Interviewee Ten:

The disadvantage is that there is a disconnect. When there is a dual obligation there is always going to be a fight as to who is going to use them when you need them. You need oversight, not the TARS...an oversight organization, perhaps an existing organization such as MSC. But there has to be someone that decides that a given individual is going to be more advantageous as a civilian on this ship. On the other hand, we need this skill on active duty. That has to be someone who truly understands the program from both the civilian and military side and has the authority to activate the person as a civilian or military. But that has to be in the hands of some organization that truly understands the needs of the Navy, the needs of MSC, and the availability of your personnel.

Interviewee Twelve:

But what you are going to wind up with is people on the Naval Reserve side saying, "don't spend any of our money on the USMS side."...I think the Navy guys would understand that you need an officer qualified on the ship and whether he came out of the MMR side or the USMS side would not be important...the important thing would be that billet would be filled so that military cargo could be moved...that would be the argument of using military funding to support the training, licenses, or maintenance on the USMS side. It is going to be a delicate thing.

The other disadvantage offered concerned the status of a MMR officer serving on board a RRF vessel in USMS capacity. Is that individual considered a civilian, a government employee, or a military officer and what protection does the individual have if something happens like an accident or even death?

Interviewee Seven:

How are these guys protected if they get killed as a USMS compared to being under orders as a military? That should be looked at...benefits for their families and that type of thing. In fact, I just saw something about the Geneva Convention for mariners in a magazine that discussed that issue. Those issues need to be considered...what the coverage is and how they fit into the Geneva Conference. Civilian Mariners (CIVMARS) with MSC...as a CIVMAR I used to carry around a little card with me, and if I was ever taken prisoner, I fell under the Geneva Conference...but that is a broader question for mariners in general.

Also addressed by five interviewees, as a disadvantage was the fact that a dual USMS/MMR program does not include unlicensed mariners. This would also be an advantage of the stand-alone program but because there was a probe question pertaining directly to it for this program, it received more comments.

Interviewee Nine:

The unlicensed problem...that is really worse than the licensed. Your program [the dual program] only addresses the licensed.

It is important also to note that three individuals explained that not having unlicensed mariners in the dual program was not a concern. Interviewee Ten explained that officers (licensed mariners) in the merchant marine are fully qualified and capable of serving in unlicensed billets on ships. Therefore, MMR officers could fill unlicensed billets on board RRF vessels if required. He believes one of the reasons this is a foreign concept, and difficult for the Navy to understand, is that the Navy rank structure does not provide the same flexibility for officers to serve in enlisted billets. He states:

I don't think it is a disadvantage if you accept the philosophy that the Navy doesn't. In the merchant marine, they do not make the great distinction as the military does between officers and enlisted. There are a number of licensed people in the merchant marine that are currently sailing in what you would consider as enlisted billets...unlicensed billets... this is unheard of in the Navy. The Navy would not take an ensign and put them in a petty officer slot. A naval officer is not trained in those specialties, but in the merchant marine, they are. Every licensed deck or engineering officer is already trained, capable, and fully qualified to do any job in the unlicensed departments. This is something the TARs do not understand and to a great degree the Navy doesn't understand either. But it would not at all be a disadvantage to take a junior third mate or engineer and put them in an unlicensed billet.

3. What Incentives or Assurances Are Needed for Affected Organizations to Support/Participate in the Program?

Some of the answers to this question were similar to those received as it applied to a stand-alone USMS pool. Concerns about meaningful training, qualification status, and a proper recall mechanism were mentioned for a dual USMS/MMR and for a stand-alone USMS. Other interviewees generally supported the initiative and did not have any specific concerns.

Some interviewees were concerned about the status of a MMR officer while serving under USMS capacity. They wanted assurances that the rights of the officers serving in a USMS capacity were protected. Other interviewees wanted assurances that the purpose of the program is clearly defined and that current MMIRRG officers are aware of this purpose and how they will be affected by the addition of USMS to the program.

Interviewee One:

One of the first questions if you recall people in their USMS status is what is their veteran status? One of the advantages of being recalled as USNR is that you have things like first-day medical coverage, and, though there are reemployment rights for both [military and civilian mariners], it works easier through the DoD plan. What kind of benefits will be offered? And if we do a standard benefit package and that exceeds what is offered on the ship, then how are we going to work that out? And who is going to end up paying it? That kind of thing.

Interviewee Four:

The big question would be why? The other question...from the people in the program, they would wonder why would they want to be part of a make-believe service that doesn't have an established track record. What is going to be in it for them?

Interviewee Eight:

We have the mechanism in place to ensure the MMR is available to sail through the Navy recall system. If we had a dual thing, we would have to set something up, through the USMS side.

Interviewee Six did not need any assurances to support the program:

The way we work it with MARAD, we feel that by the time that we got down to one of these extreme programs or something...we would be so low that we would be glad to get a body just to fill out the ship complement.

4. What Incentives Are Needed to Entice Individual Mariners to Join and Remain in the Program?

There were not many answers provided that specifically addressed this question.

This was due to two reasons. First, many of the answers that were provided as individual incentives for the stand-alone are already established for members of the current MMR program. These include incentives such as pay, training opportunities, and a retirement plan. Second, the question was not asked in such a way to elicit responses for both options, but as it applied to individual mariners in general. This was because most entrants into the program come from USMMA or the state academies that participate in the SIP. These individuals are required to join the MMR; they do not volunteer. Also, as the program currently exists, there are rules and regulations governing what individual incentives can or cannot be provided. However, one individual provided answers specifically applicable to a dual USMS/MMR program.

Interviewee One:

Well, for those that are obligated, if you are running a dual program, you are going to have a certain pool of men and women out of the academy for eight years so I do not think there is going to be a need for incentives at the third mate or assistant level. For the advanced licenses, I think that you are going to need to guarantee that they can go to school and keep their STCW up to date as part of the training process so that they do not have to do their two week Navy annual training and then an additional two weeks for schools to maintain their license.

5. What Are the Training and Qualification Requirements?

Questions regarding training and qualification requirements were not specifically asked as they applied to a dual USMS/MMR program. Because the intent of a dual USMS/MMR program would be for its participants to serve as a back-up pool of inactive mariners to crew RRF vessels during a contingency, it can be assumed that these participants would need the same type and frequency of training as do members of a stand-alone USMS.

Incidentally, Interviewee Eight was asked if members of the current MMR program are directed to take specific types of training, for instance that necessary for a steam endorsement. He stated that the current policy is not to direct individuals to take specific training or obtain specific endorsements. If a dual program is established, a training plan would have to be developed that specified, for example, training that is unique to the RRF. It will also have to reflect how many and which program participants would need to have any given qualification.

6. What Are the Sign Up and Obligation Requirements for Members Participating in the Program?

Interviewees did not provide any major changes to the current obligation of six years active, and two years inactive upon entry into the MMR program after graduation from a maritime academy. The interviewees felt it should be left the same, had no strong bias, or were not familiar enough with the program to provide an answer. A concern that a couple of interviewees had with the ability to recall an individual in a stand-alone USMS was not a problem for a dual program since members are still in the Navy and fall under Naval jurisdiction. However, Interviewee Four described the current obligation policy for MMR members that have completed their initial eight-year obligation:

They have not been [required to obligate for a given period of time]. Normally how it works is that if they have satisfactorily participated in the program, they are allowed to stay in the program. That means they maintain their licenses, do their physical, send in their annual report, and those types of items. The incentive to do that is to do the two-week ATs and for some that are more aggressive, is to get 20 qualifying years for retirement.

7. What Organization(s) Should Manage the Program?

Most of interviewees believed it would be best to have the MMR Program Officer manage a new dual USMS/MMR program. Similar to answers received when asked pertaining to a stand-alone program, there would be a need for additional manpower and resources to properly perform the mission. There was concern expressed by three individuals about possible conflicts in interests or priorities when it came to USMS requirements and naval requirements. It will be important for relationships and protocols between MARAD and the Navy to be worked out to ensure proper management of the program.

Interviewee One:

I suggest that they stay with the office in New Orleans and create a DOT/DoD MOA dual-hatting the program manager as the MMR boss in charge of training and operations.

Interviewee Four:

I think from that standpoint, you have the whole Navy's infrastructure in place on recalling. Literally, at every reserve activity, every port, the bases are in place to make this thing happen smoothly....If it were dual, this office would be the logical place for it. Of course, this office would have to expand.

Interviewee Six:

If they were going to do training with the Navy guys, I would keep it down at New Orleans, but they will have to get their staff increased. Now, is the Navy going to put up with the extra expense for doing something for MARAD? Or is it going to ask for more money? No matter how you do

it, there is going to be an increase in shoreside personnel for whoever has the record keeping for it...everyone tells me they are two blocked right now. New Orleans only has six people and MARAD only has three in their own office.

Interviewee Eight was concerned about possible management conflicts that could develop if there are competing interests or different requirements for a given individual:

There will probably be a conflict in managing that...between what the Navy and civilian requirements may be for that particular individual.

a. Use of MMROCH SELRES to Manage either a Dual or Stand-Alone Program

Each interviewee was also asked their opinion if the members of the MMROCH units, the SELRES portion of the MMR Program, could be used to manage either a dual or stand-alone USMS program. The majority who were familiar with this aspect of the MMR program believed they could indeed participate in the management and coordination of either of these programs. The interviewees in favor of their involvement provided these comments:

Interviewee Two:

This MMROCH unit could if it was expanded. For example, at the shipyard I was at, we assigned each reservist 21-day ATs and linked them together so we always had someone there and had 52-week coverage. If you took this MMROCH unit with eight, you could expand it to 25...two weeks a year your AT will be at MARAD...but that is not fair because we need to train and do other things. So you need to give us additional time. Or you can overlap where the desk is covered. Having one guy here at MARAD west would be more than enough to coordinate the 27 ships times four people against each ship. There again, you don't need a huge bureaucracy out there...it is already here.

Interviewee Ten:

I suggested that years ago...when I was the skipper of the New York MMROCH unit. My suggestion was to divide the nation into four areas...you have four MMROCH units and they should be the ones

coordinating the training, the manning, and recall of these people. But the TARs would not have anything to do with it. The MMR SELRES are severely underutilized because the TARs want them to function like every other good SELRES and the Merchant Marine does not fit...they are trying to put a round peg in a square hole. They insist on it. Their attitude is...if it doesn't fit, then they are not good reservists.

Interviewee Six:

Yes. Right now they are moving the New York unit down to Baltimore...and eventually down to Norfolk. That would be a good mix. They have ten, eleven, twelve people in a unit...they could do their two weeks a year as training officers for MARAD. That is a good mix...that is a good move. And you have San Francisco...so you have two coasts covered with someone sitting near an RRF fleet. That would be a good thing for the MMR program.

Interviewee Four suggested his preferred way to manage the program. He said:

At this time I would think that SELRES would not be the logical management tool. I think that fulltime staff would better serve them.

8. What are the Obstacles (Real or Perceived) in Using the USMS Concept to Develop a Dual USMS/MMR Program?

One of the main obstacles identified by the interviewees highlighted potential military and civilian cultural and structural issues. The potential differences that result from a program participant being in a USMS status or military status need to be addressed. Other issues such as what are the program priorities, who is in charge, and recall/activation procedures need to be resolved. Also, some of the obstacles that were provided for a stand-alone USMS program such as costs and achieving stakeholder buy in were mentioned as well.

Interviewee Eleven:

The major issue there would be the mix of military and civilian and who is in charge. The big question gets into military structure versus

nonmilitary...or lack of structure.

Interviewee Eight:

And what happens if something happens to an individual...is he a civilian or a military guy. If he is military, there are certain things that fall into place if he is a military individual that gets killed in action. Does he get the same benefits as a regular military guy if he is sailing as a civilian?

To help resolve these obstacles, interviewees felt that a MOU between the Navy and MARAD was essential for program establishment. Protocols would also need to be developed to address the obstacles the interviewees provided.

Interviewee Four:

There should be a revision to the 36 Act to write in this new USMS group. There would also need to be a MOU between the Navy and MARAD to define a clear-cut role on who would be recalled first, and what are the actual requirements to be in the USMS vice the Navy. Those would have to be put in black and white and agreed upon.

Interviewee Five:

At a minimum, we would need a MOU or MOA between the Navy and MARAD. We also would need understandings and agreements with the unions and the ship managers, as we also would for a stand-alone program on how we would administer it...how we would protect their influence in a particular area.

Interviewee Thirteen stated that there would be objections to adding the USMS designator to MMR officers from the Reserve Officers Association (ROA). He stated:

If you have a guy that is a MMR/USNR...you can put anything else on it you want like USMS...he is still a USNR officer and the only reason you are getting your arms around him is that he is a USNR officer. I don't think there is any way you can do that without changing the law. I don't think that if you are introducing special legislation, you are not going to get that approved...and I don't think you will get legislation through to do that...I have met with the ROA people, the Reserve Officer Association, and they see it as something dangerous. They see it being dangerous to be able to call up a selective group of people to do a specific job rather than

under the purview of the whole reserve program.

D. OPINIONS OF STAKEHOLDERS ON THE FORMING OF A STAND-ALONE USMS OR DUAL USMS/MMR POOL

Three standard questions were initially asked of the interviewees to determine their preferred approach to establishing a back-up pool, their level of support for MARAD's USMS initiative, and also to obtain their ideas on other approaches to help achieve "assured access" of merchant mariners for RRF contingency crewing.

Determining the interviewees' preferred approach to the establishment of a USMS pool was the primary research question for this thesis. Additionally, a fourth question emerged based on one of the answers provided by Interviewee Five. Interviewee Five suggested that if a stand-alone USMS program was created, one of the options for USMMA graduates and SIP participants at the state academies could be to directly enter the USMS. Each subsequent interviewee was then asked for his opinion on this option.

1. Primary Question: Given the Need for a Backup Pool, What is the Best Approach to Satisfy the Need: A USMS Stand-Alone Program, A Dual USMS/MMR Program, or A Combination Of Both?

Eight interviewees responded that a USMS stand-alone program was the best approach to establish a backup mariner pool. Provided that adequate funding could be obtained, those interviewees believed that a stand-alone pool would provide more advantages over a dual USMS/MMR program. Major benefits included:

- The program would include both unlicensed and licensed mariners
- Avoid potential barriers with civilian and military differences
- Provide an incentive to non-actively sailing mariners to maintain their licenses
- Provide a good complementary program for licensed mariners that either do not meet MMR program requirements or have completed their obligation and no longer want to deal with a military organization

Typically not all of the responses from the interviewees are provided, however, since this is the primary research question, it is important to provide a portion of each individual's ideas that could otherwise be lost in an executive summary of their answers.

Interviewee Two:

I think a dual-linked program works best because it has a common objective that utilizes all the existing components such as the ship companies, the union, the Navy, and the schools with the end result being trained mariners that fill the shortfalls.

Interviewee Four:

If you were not going to create a USMS, then I like the option of a dual. When the Navy puts people out to pasture and I think too early before their usable lives...someone in their early 50s would still be very useful to man a ship. That is, where a USMS would be a good second home for them to go, and to continue to obtain training, and to continue to give back to the sealift readiness of the country.

Interviewee Five:

There is a whole lot of "ifs." If we can get adequate funding for a stand-alone program, that is the way to go. If we can convince people that the USMS is a viable concept and one worthy of developing and funding, I don't think you need the MMR...I think you can do it completely with the flexibility of the USMS, which can serve again all manpower positions including unlicensed. It is such a leap to assume that we are going to be able to get there...I think it is worth a try...I'm willing to try that concept.

Interviewee Eight:

The best approach would be to have a stand-alone USMS pool of individuals. If you can work it out where those individual guarantee that they will be available for any kind of contingency; I think it would be the best way to go. I think it would satisfy the unions...satisfy MARAD...it would get us out of the business...even though I think the MMR program is a good program...it would take the pressure off the MMR program.

Interviewee Six:

I think the USMS is the best idea...it has more chance of success if put forward the right way. I think the way they would do the training is on RRF ships, where MARAD needs the people to be the best trained. I think

the thought of having a conflict between unions and the USMS program is remote because the USMS program would be made up of non-sailing people.

Interviewee Eleven:

I would go for the new stand-alone commercial based group but I don't think you will get rid of the existing MMR [not associated with the USMS], so the answer then comes out dual.

This new one [USMS program] is trying to provide a pool [of inactive mariners] that was available before that could just renew their licenses back in the early 90's...back in the Persian Gulf War time. After February 2002, they won't be able to sail internationally because of the lack of certificates and endorsements under STCW...therefore, this [USMS] pool is a vital pool that reestablishes a pool that we need that we lost...and if we just made it [in terms of mariners available to crew ships] back in the Persian Gulf War, how in the hell are we going to make it today without them this time...so we need them...so to establish it is good. The MMR was there last time...it didn't do anything [no officers were recalled to active duty], so as it is today, it probably wouldn't do much.

Interviewee Twelve:

From an institutional barrier perspective, having the USMS and MMR program separate from each other would eliminate a lot of the current problems...I favor a separate USMS and a MMR program...looking at institutional barrier and the fact that those that didn't fit into the MMR program could fit into the USMS program.

Interviewee Fourteen:

I think the stand-alone pool is the best approach...because that pool would consist of licensed and unlicensed mariners.

Two of the interviewees preferred a dual USMS/MMR program. They believed it would be easier to establish a dual program and it would provide more flexibility to use members of this program as either military officers or as civilian mariners.

Interviewee Nine:

I think the dual is probably better because it will be easier to establish training programs through the MMR units.

Interviewee Ten:

For full flexibility and integration I would say using the MMR and the USMS together. That is probably the most difficult to implement but it gives you the most flexibility and in time of national emergency, that is what you need. It is going to be the toughest thing to sell, but I think it is the most beneficial to the country and I think when all is said and done, that is what this is mostly for.

Only Interviewee Seven specifically supported the development of a stand-alone USMS and a dual USMS/MMR program. His reasons were as follows:

I think both because you get the most...more people...both licensed...and you get the unlicensed with a stand-alone program. I think you should start in small steps and maybe go with the reserve program first...but I think you should do both... the reason I say that is because you are looking at getting the unlicensed. You need them just as much to operate the ships and by just by going with the dual one, if you are short on unlicensed too...you are going to have a hard time getting the ship underway.

Finally, Interviewee Thirteen believed that neither program should be pursued.

His contention was that a stand-alone USMS program, regardless of its possible advantages, was unattainable because of its substantial cost. Also, as a firm believer and one of the individuals responsible for the MMR program reestablishment in 1979, he did not think that one of the intended missions for MMR officers should be to crew RRF vessels. He provided the following:

I was involved in reestablishing the whole MMR program. And there are certain things there in the reestablishment that they could train these people to be used as naval auxiliaries in time of national emergency. So that if you brought up a fellow and it was more the activation of a fellow in the USNR, then he could serve a useful purpose in working with the Merchant Marine...not working on the Merchant Marine ships but working with the Merchant Marine...because the Merchant Marine becomes the fourth line of defense...the MMR was not established to man the RRF vessels at all.

2. Do you in General Support the Initiatives that MARAD has Proposed?

When asked the above question, most of the interviewees said they supported MARAD's initiative of using the USMS program to establish a back-up pool of mariners. Two interviewees were opposed and one individual was undecided. Those who supported the initiative said:

Interviewee Five:

I do agree with it. I think we have to do something...I think the Merchant Marine has shrunk to a level...whether the cushion of the manpower pool that we have is adequate to withstand the pressures of a large-scale activation of government ships. We had problems in Desert Storm, and the industry was larger back then than it is now...we have overcome a lot of their concerns with manpower on the one hand with partial permanent pools are ships...even though you have taken care of those concerns with permanent crews...you still have a smaller Merchant Marine and less of a cushion to work with from the standpoint of available labor that may be on the beach. We are at a point that we have some concerns and there are potential problems. We think that there are some real potential problems. We think that we would have some problems where we had an extended activation where it was long enough where we were rotating crews...we just don't think the labor base is large enough to withstand those kinds of pressures, in all ratings, in all cases, when you have a fully engaged commercial fleet. We think something has to be done. We think this is a very viable tool that can help alleviate problems that we may have.

Interviewee Eleven:

Yes I would...I think they ought to do it given the requirement...let's say the reduction of available qualified Merchant Marine officers...particularly with the STCW.

Interviewee Nine provided the following answer with another approach to the mariner shortage issue:

No, because I do not think it is affordable. I do not think it will ever get approved. I think we stand a better chance of leveraging government contracts and the MSP payments to create additional billets at sea and forcing them to put trainees out there for that.

3. Is there a Better Way to Achieve “Assured Availability” of Merchant Mariners for RRF Contingency Crewing?

The above question was asked in order to obtain the expert opinions of the interviewees on other ways to achieve “assured availability” of mariners in addition to using the USMS concept. The number-one answer provided was for the U.S to have a large, healthy, Merchant Marine. If the U.S. had more U.S-flagged vessels, that would result in more billets for mariners and therefore a larger active pool to draw from in the event of a contingency. In fact, some interviewees suggested that our interview probably would not be taking place if a robust Merchant Marine existed. Some of the interviewees provided possible ways to achieve this. Specific comments include:

Interviewee Ten:

The best way is far beyond our ability to plan and that is if we had a large healthy Merchant Marine. I don't see that happening in the foreseeable future because of globalization and the insistence on the reduction of crews and increased profits. The companies are going to register their vessels under the flag that makes them the most money. And so you will get flag of convenience ships. You have a choice: you can either subsidize the US-flag Merchant Marine so it can compete with the lower cost third world nations...and I don't think that is in the books right now...and so the alternative is to have people qualified to operate ships that you either have in lay up or charter or lease on the open market when you need them.

Interviewee Six:

The “A” answer to this whole thing is if we had a viable Merchant Marine, we wouldn't be having this conversation.

Interviewee Two believed cargo preference would help solve the problem:

An active fleet...and cargo preference would also solve these problems. You could have it for ten percent of U.S. cargo...even five percent. We are nuts not to do that. If we had five percent, it would result in 350 ships. It should be plugged in an economic sense. No one has really done a return on investment that American ships and mariners put back into the economy. Foreign mariners do not put any money back into the economy.

Some interviewees' answers focused on how to increase the number of billets while working within the current structure and vessel numbers. Interviewee Nine believed leveraging MSP contracts would be good way to increase the number of billets:

I think we stand a better chance of leveraging government contracts and the MSP payments to create additional billets at sea and forcing them to put trainees out there for that.

Interviewee Fourteen's focus was on creating more jobs, but also in better using the RRF:

Yes I do. If you get more mariners working, there wouldn't be a shortage. If I have more entry-level jobs, I could have more ABs and firemen. It is really that simple...and the perfect place to create those entry level jobs is on the RRF ships...but they have to get past the issue of sea time with the Coast Guard to do that...somebody should be working on all of those ships...there should be a skeleton crew on every one of those ships. There should be a Bosun, there should be an AB, there should be a QMED, and there should be an Ordinary Seaman as well as a cook...and they shouldn't be going home every night. They should be staying on those vessels. That creates five jobs per ship instead of five jobs for every ten ships...and that is what they are doing right now...they are rotating crews from one ship to the next and they are going home every night.

The biggest thing I'm pushing is to create more jobs within the industry instead of worrying about pools and keeping enough people working so the pool wouldn't be a factor...for licensed and unlicensed.

Interviewee Eleven, although supportive of growing the active U.S. fleet, still believed some action similar to the USMS backup pool concept needed to be explored.

There may be other ways...but this is one way of part of our study...comparing 1990 to now...it is an aspect where we are working on trying to do unlicensed apprentice programs and this transition pool [for graduating USMMA and SIP participants] so they don't get automatically waived...the pool that hasn't been tagged or solved is the one you are talking about...the ones that are retired or are sitting at home and doing something else...they won't have the credentials to go...and we have just lost that pool unless we do something like this.

4. Opinions on Whether a Graduate from the USMMA or State Academy SIP Participants Should Have the Option of Directly Joining the USMS

When an individual graduates from the USMMA or from a state academy (SIP participants only), they have an obligation to go on active military duty or to actively sail as a commercial mariner (unless a waiver is granted) and join the MMR program.

Interviewee Five suggested that if a stand-alone USMS program existed, those same graduates should either be required or have the option of going directly into the USMS.

He provided the following:

The way I would envision it...if we had a stand-alone USMS, it becomes a quid pro quo. In other words, you wouldn't demand that they go into the MMR; you demand they go into the USMS. I don't see why you just couldn't make that the obligation...you would have to change the law but I think that would be the cleaner way of doing it. I guess we could give them the option of the USMS or MMR. I guess if a guy wanted a naval career instead of a Merchant Marine career...I don't see a problem with offering a guy the MMR option, but, if they take the MMR option, and you have the USMS, I'm not sure if the MMR guy would be focused on serving our sealift ships if you have the USMS. I think that is what the USMS would be for and I would view the MMR officer as something...to serve as a naval officer on a naval ship perhaps instead of as a commercial mariner on a RRF ship. Why have the two guys with different uniforms serving the same purpose. I don't see why you would do that.

When other interviewees were asked about direct entry into the USMS, most of the interviewees said they could envision this new option. However, two more important issues were raised. First, the interviewees felt that actively sailing to gain maritime experience upon graduation was the most important thing for graduates to do. They should either be actively sailing or go on active duty. Second, the intent of a stand-alone USMS program is to have a backup pool of experienced inactively sailing mariners for potential RRF contingency crewing needs. If graduates directly entered the USMS after graduation, they will either be actively sailing or non-actively sailing. Those mariners

actively sailing would be considered part of the active pool, which is good for the overall industry but does not meet the intent of the goal for a backup pool. The other side of the issue is if these graduates are not actively sailing, they would meet the intent of a backup pool, but would be lacking in experience. Interviewee Thirteen stated is was possible but the Navy would resist it:

Sure...that may be the way to do it. And I think the Navy would be losing a lot of talent. I don't think the leadership within the Navy would go along with it.

Interviewee Fourteen was concerned about the level of experience:

I think you could do that...but the problem you have again is that these guys that come out as third engineers or third mates and they never ever go onto a ship...what are they going to do when they get to a ship? They are not going to know what to do...you navigate and stuff like that, you are never going to remember it unless you work with it...they are not going to be any good to you unless they have experience.

Interviewee Ten believed it would be popular provided it was designed properly:

I think that would be a very popular option provided that the rewards were the same as going MMR...the USMS cannot be looked at, as a second grade or stepchild system or no one will want to participate. Right now, the government needs some type of mariner pool more than the mariner needs the government. There has to be an equal incentive...it cannot be second rate... "you are in the USMS while I am in the MMR"...can't be that way...it must be equal. It means that equal training opportunities are available, the funding for the program is the same...people get the same type of benefits as far as using facilities like Exchanges and Bachelor Officer Quarters...it has to be across the board. It has to be a fully recognized and accepted civilians reserve program.

E. SUMMARY

The purpose of this summary is two-fold. First, it provides a condensed version of the data analysis that can quickly be scanned and specific information easily found. Second, it includes some additional inputs and opinions the interviewees provided that

were not specifically mentioned in this chapter. The next chapter draws upon this analysis to state some conclusions and provide recommendations.

Questions	Stand-alone USMS	Dual USMS/MMR
1. What are the advantages?	<ul style="list-style-type: none"> -Provide a back up pool of experienced mariners -Quick, guaranteed access -Target specific rates where shortages exist, or unique RRF skill sets -Increase size of non-sailing mariner pool -Counteract STCW 95 -Civilian program: no Navy influence or confusion of roles -Good second home for previous MMR officers -Can have both unlicensed and licensed mariners -Volunteer organization: participants not forced to obligate -Could entice non-actively sailing mariners to rejoin active pool -Formalize non-sailing data base -No advantage could exceed cost of the program 	<ul style="list-style-type: none"> -MMR program is already in existence -Leverage established system to administer, train, recall, recruit, track and fund participants -Easier to develop with regard to new laws or legislation -Guaranteed access to USNR/MMR -Provides flexibility to use participants as civilian mariners or naval officers -Able to recall as civilians to crew RRF vessels. -Prevents civilian/ military structural/cultural issues -MMR officers are already familiar with RRF vessels from ATs. -No Advantage: Crewing RRF vessels is not their intended purpose
2. What are the disadvantages?	<ul style="list-style-type: none"> -Cost/obtaining adequate funding -New program that has never been done before -No current infrastructure within MARAD to handle program -Provide a false sense of security with regard to contingency crewing -Lack of exposure to maritime vessels/ not hands on -Physical capability concerns for retirees in pool -Stir up unions: pay issues, non-union participants -Confusion of USMS role -Program could be viewed as separate from current structure 	<ul style="list-style-type: none"> -Potential differences between USMS goals and Navy goals for program -Allegiance to crewing RRF vessels as civilians versus Navy mission requirements -Mismatch between USMS requirements and naval reserve promotion requirements -Funding arguments over which organization pays for what -No unlicensed mariners in program -Compete for same money -Status of officer while serving in USMS capacity (unclear) -Some MMR officers are actively sailing: would not be part of backup pool

Questions	Stand-alone USMS	Dual USMS/MMR
3. What assurances or incentives are needed for affected organizations to support/participate in the program?	<ul style="list-style-type: none"> - Participants must be properly trained and qualified to perform RRF mission -Participants must be available and prepared to go for short-notice activations - Mission must be articulated -Ensure program is on equal footing with other reserve programs - Formally include ship managers - Ensure pool does not draw out/reduce actively unlicensed sailing mariners - No specific concerns or assurances needed - Government pays for the training 	<ul style="list-style-type: none"> -Similar concerns/assurances to stand-alone: participants are trained, qualified, ready, and available to deploy, and proper recall mechanism -Clear purpose why and how the program will work -Same veteran status and access as military while in civilian status (e.g. medical, retirement points) -Should also have a stand-alone program because you lose bodies -Prove to ship managers you can get them and identify who they are
4. What incentives are needed to entice mariners to join and remain in the program?	<ul style="list-style-type: none"> -Pay for participants' license, training, and qualifications - Pay mariners (bonus to join, pay at rate you sail at when in training or active status) -Meaningful training -Access to activated RRF vessels -Retirement program (e.g. 401(k), limited, or similar to MMR program) -Guaranteed protection (e.g. death benefits) -Same status as military veterans -Commissary privileges (limited) -Minimum time commitment -Directly enter USMS from maritime academies – avoid Navy 	<ul style="list-style-type: none"> -Incentives for dual were not as big of concern because current MMR program provides most of recommended incentives for stand-alone (pay, training opportunities, and retirement plan), provided within current military rules -No particular incentives needed for participants in program less than eight years. For over eight years, guaranteed access to training during AT period, not additional time. -Mariner employee incentives and preferences if member of program
5. What are the training and qualification requirements?	<ul style="list-style-type: none"> -Must train on ships, with majority of time underway (RRF vessels primarily but also commercial) -Frequency of training: high of eight weeks to minimum of two weeks per year. Two weeks most preferred -Minimum training requirements: that necessary to maintain a current license, including STCW 95 -RRF training: steam (biggest concern), cargo handling, OPDS, damage control, bridge management -All training needs to be incorporated in comprehensive training plan -Assign individuals to specific ships or types of ships 	<ul style="list-style-type: none"> -Training requirements for members of dual USMS/MMR would be same as listed for stand-alone. -Note: must change how training is determined for specific individuals. Currently no policy on who is qualified to what level or endorsement (e.g. steam) -Must have a comprehensive training plan

Questions	Stand-alone USMS	Dual USMS/MMR
6. What are the sign up and obligation requirements for members participating in the program?	<ul style="list-style-type: none"> -Participants must obligate to be recalled to crew RRF vessels and to go do training as required -Concern over enforcement of obligations (can they be involuntarily recalled?) -Five year obligation period (most common answer) tied to license renewal and physical -Tiered obligation with bonus for certain years obligated (e.g. \$3K for 3 years) - Five or six years initial obligation, then six months after that -Six years –same as out of academy 	<ul style="list-style-type: none"> -Should remain the same for initial obligation: currently six years active, two inactive -No strong bias on changing it -Could not give answer because unfamiliar with program <p>Note: currently there is no obligation requirement for officers after their initial eight-year obligation. If program participants are relied upon as a backup pool for the RRF, an required obligation should be considered</p>
7. What organization(s) should manage the program?	<ul style="list-style-type: none"> -MARAD should actively manage but need additional manpower and resources. Locate in Training or National Security Affairs -Managers need to be experienced mariners -Set up the office similar to that of current MMR program -Concern: need to have separate groups in charge of licensed and unlicensed -Form an umbrella group under MSC -Ship managers and/or unions should manage program and MARAD provide oversight 	<ul style="list-style-type: none"> -Leave as currently is: in New Orleans under a Lieutenant Commander as program manager and six staff members. Would need to expand personnel and obligate more money -Naval reserve must do – don't separate program from Navy -Need a more experienced and senior person managing the program, such as an O-6 -Did not offer opinion because of current MMR program study
7a. Opinions on idea of using ship managers or unions to manage stand-alone and MARAD provide oversight	<ul style="list-style-type: none"> -MARAD would need to retain administrative control. Ship managers could coordinate training -Against ship managers doing it – too much on their plates -Could subset program participants by the different unions -Keep away from unions – must be flexible -Would be difficult to do – mismatch of billet assignment among various unions and ship managers. Paperwork drill -Unions could manage retirees. They know who these people are -Not opposed 	

Questions	Stand-alone USMS	Dual USMS/MMR
7b. Could MMROCH units manage or coordinate a stand-alone or dual USMS/MMR?		<ul style="list-style-type: none"> -Yes, they could. Would need to increase size of units -Could use ATs so someone was always at MARAD -Yes, could play a role. Currently underutilized -Yes, suggested similar use years ago -Yes, could use. Help in recall/contact mariners -Not familiar enough to answer -No, need a full-time staff to do it
<p>8. What are the obstacles (real or perceived) in using the USMS concept?</p> <p>What rules, regulations, procedures, policies, or laws need to be created or modified to accomplish this task?</p>	<ul style="list-style-type: none"> -Obtaining adequate funding -New program has never been tried before -Stakeholder opposition (to prevent, need stakeholders, especially unions and ship managers, involved. Must properly explain program purpose) -Need to justify need and purpose of program to gain support -There are not enough unlicensed mariners for current needs, let alone to fill a USMS pool -Must be well organized. Funds cannot come out of operating costs -Must have a senior person in charge <p>Rules, Policies, Regulations, or Laws:</p> <ul style="list-style-type: none"> -Need to modify Merchant Marine Act of 36 and Title 46 of CFR -Need extensive implementation rules and protocols -Need to change laws as they effect obligation from academy. <p>Changes need to address:</p> <ul style="list-style-type: none"> -Enforcement of program participant requirements and obligations -Recall to crew RRF vessels -Recoulement of education investment 	<ul style="list-style-type: none"> -Need to get consensus among stakeholders (difficult objective) -Mix of civilian and military (cultural differences) -Retired Officer Association opposed to having selective recall outside of typical reserve recall structure -Who is in charge? Navy or MARAD? -Structural and cultural differences: convince union not stealing jobs -Navy recall system/how match with USMS -Cost to perform additional mission <p>Rules, Policies, Regulations, or Laws:</p> <ul style="list-style-type: none"> -Must have a MOU/MOA between Navy and MARAD explaining roles, purpose, recall priorities and procedures, etc. -Modify Merchant Marine Act of 36

Question	Opinions of interviewees
<p>1. Primary Question: Given the need for a backup pool, what is the best approach to satisfy the need: a USMS stand-alone program, a dual USMS/MMR program, or a combination of both?</p>	<p>STAND-ALONE: (8)</p> <ul style="list-style-type: none"> -Common objective of having trained mariners that fill the shortfalls. Should encompass all components of industry and also complement MMR program -The USMS would provide a good second home for MMR officers upon completion of obligation or after their Navy retirement -Pursue the USMS if we can get adequate funding. Must ensure USMS is a viable concept -Addresses all manpower positions, including unlicensed -USMS has a greater chance of success if presented properly. Program participants will be volunteers, not forced to obligate -Stand-alone provided there is a guarantee that individuals will be available for a contingency. -Takes the pressure off the current MMR program -Create a stand-alone program to ensure non-sailing/retiree pool is qualified and has current licenses. Do not compete with MMR program but complement it: conduct assessment to revitalize or transform MMR -Stand-alone because of the institutional barriers prevent creation of a dual USMS/MMR. Keep programs separate. Mariners that do not fit into MMR could fit into stand-alone USMS -Pool would consist of licensed and unlicensed <p>DUAL USMS/MMR: (3)</p> <ul style="list-style-type: none"> -Dual program may have to carry the day in short-run if adequate funding cannot be found for stand-alone -Dual provides full flexibility and integration. Allows individual to sail as civilian or military officer -Dual because it will be easier to establish a training program through the MMR units <p>BOTH STAND-ALONE AND DUAL: (1)</p> <ul style="list-style-type: none"> -Creating both programs gives you the most in terms of licensed and unlicensed. More options <p>NEITHER OPTIONS: (1)</p> <ul style="list-style-type: none"> - Neither option should be pursued. The stand-alone is too costly and the mission of the MMR program is not to crew RRF vessels as a civilian or military
<p>2. Do you in general support the initiatives that MARAD has proposed?</p>	<p>YES: (8)</p> <ul style="list-style-type: none"> -Something has to be done because the Merchant Marine has shrunk to a level that may not be adequate to withstand the pressures of a large scale activation -Support given the reduction of available qualified merchant marine officers -Creates a backup pool -The USMS is a better approach than the MMR -Yes, because it helps achieve more trained mariners that fill the shortfalls -In general, providing the USMS is set up so participants have medical and disability coverage and some type of retirement benefits similar to Navy -Support stand-alone USMS provided it is not a competing function with MMR program <p>NO: (2)</p> <ul style="list-style-type: none"> -Program is not affordable and will not get approved

Question	Opinions of interviewees
3. Is there a better way to achieve “assured availability” of merchant mariners for RRF contingency crewing	<ul style="list-style-type: none"> -Yes: a healthy, robust U.S. Merchant Marine fleet -Increase cargo preference percents for amount of U.S. cargo that U.S. ships must carry -Use VISA and MSP contracts to create additional billets on board -Create more billets on the RRF vessels -Incorporate MSC into issue -May be other ways, but none of them specifically address the non-sailing mariner pool like the USMS concept does
4. Opinions on whether a graduate from the USMMA or state academy SIP participants should have the option of directly joining the USMS	<ul style="list-style-type: none"> -If there was a stand-alone USMS, then joining it would be their obligation or an option upon graduation -Would be a popular idea with academy graduates (no Navy involvement) -Could be an option, but bigger concern is that graduates must actively sail to gain experience. If they are actively sailing, then they are considered part of active pool, not a backup that is purpose of USMS. If graduates are not actively sailing, they need training and experience to be of value to USMS pool. -Could provide the option, but Navy leadership will resist... do not want to lose this pool of uniquely talented officers -Against it: they need to join the MMR or active duty after graduation

Table 4. Summary.

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V. CONCLUSIONS AND RECOMMENDATIONS

A. INTRODUCTION

The Maritime Administration (MARAD) has proposed the development of a guaranteed surge pool of experienced inactive mariners available to ensure timely and adequate manning of the RRF. This pool would be a supplement, not a replacement, to the current active pool of mariners used to crew the RRF. This initiative is centered on using the United States Maritime Service (USMS) concept. By using the USMS, there are three main approaches to the establishment of a guaranteed pool that MARAD could take. First, it could develop a new dedicated stand-alone pool under the sole control of MARAD. The second option is to integrate the USMS concept with the Navy's Merchant Marine Reserve (MMR) program. The MMR consists of Selected Reservists and Individual Ready Reserves (MMIRRG) that have valid USCG licenses. This second approach or dual USMS/MMR program would allow MARAD to take advantage of an existing program that can provide for the mariner's training and qualification needs, but have the flexibility to recall these mariners as civilian mariners instead of military officers to serve on RRF vessels. The third approach is to have both a stand-alone USMS pool under MARAD and a dual USMS/MMR program.

The purpose of this research was to provide MARAD and the Navy with elements of how this pool could be developed and structured from the perspective of stakeholders involved or familiar with the U.S. Merchant Marine, the RRF, and the Navy's MMR Program. Data were obtained through a literature review and from fourteen structured

interviews. A secondary purpose was to identify the option that stakeholders believe is the best approach.

B. CONCLUSIONS

1. A Stand-Alone USMS Program was the Preferred Approach to Develop a Backup Pool of Inactive Sailing Mariners

Of the three options (stand-alone USMS, dual USMS/MMR, or both) to develop a backup pool of mariners, a stand-alone USMS program was the most preferred approach by the interviewees. The primary reasons for this choice include:

- A stand-alone USMS program would formally provide a backup pool of experienced mariners, both licensed and unlicensed
- The USMS program would provide quick, guaranteed access to mariners
- It provides the ability to target specific rates and ranks as well as unique RRF skill sets where manning shortages exist.
- It will help counteract the impact of STCW 95 on the non-sailing and retiree pool. It will also provide an incentive to mariners to maintain an active license
- It is a civilian program that is not connected with or influenced by the Navy. Additionally, a stand-alone USMS would be a good program for previous MMR officers to join

Despite the numerous advantages and benefits of a stand-alone program, it will not be easy to create. The biggest obstacle facing the development of a USMS program is funding. This is a new type of program (a backup mariner pool) that has never been attempted before. MARAD does not have the necessary manpower, infrastructure, or the money in their current budget to support this program. MARAD would need to justify and find an additional funding source. Another potential obstacle that needs to be addressed is achieving support from stakeholders, specifically the ship managers and unions. Consensus and coordination among stakeholders is critical if a USMS program is to be developed and accepted.

2. Creating a Dual USMS/MMR Program is not the Preferred Approach and Such a Program Would Encounter Obstacles and Opposition. However, with Some Changes, the Current MMR Program Could Be Used as a Backup Pool for RRF Crewing

Creating a dual USMS/MMR program was not the preferred approach to forming a backup pool of inactive mariners. While there are advantages to creating a dual USMS/MMR program, they do not outweigh the disadvantages. It also appears that an attempt to form this dual program would encounter obstacles and opposition. However, with some changes to the existing MMR program, its members could be used to form a backup mariner pool to crew RRF vessels during a contingency. The program has individuals with USCG licenses not actively sailing who could be used for this given purpose. By making changes to the program, MMR officers could be used to crew RRF vessels as naval officers. This approach is different from a dual USMS/MMR program where these same individuals would have served as civilian mariners, not naval officers, onboard RRF vessels.

The main advantage given for creating a dual program was to leverage an existing program (the MMR) with a well established system to administer, recruit, train, track, recall, and fund participants. Using the program as it currently exists still has that advantage. It also avoids all the issues and structural differences between civilian and military created when a program member is technically considered a civilian when serving under the USMS, and as military the other times.

3. Stakeholders Prefer Emphasis on Expanding U.S. Merchant Marine to Reliance on Backup Pools

When asked, interviewees provided their opinions on the USMS option they favored to develop a backup pool and also how they believed these programs should be

designed. However, given their choice on a better way to achieve “assured access” of mariners, the creation of a USMS program was not their preferred approach. They believed the best way was for the U.S. to have a robust U.S. Merchant Marine and also to create additional sailing billets.

4. The Availability and Total Number of Mariners with Steam Endorsements and Experience are a Major Concern for Stakeholders

The RRF has 46 vessels that have steam plants. Because the majority of the ships in the active U.S. commercial fleet are diesel, there are not many actively sailing engineers with steam experience. For example, during Desert Shield/Storm, APL went to its retiree list to find all of its Chief Engineers because all 12 of the ships they managed in the RRF were steam ships. The youngest retiree was 64 and the oldest 73 years old. This highlights another problem, that retired steam engineers may be becoming too old to sail.

C. RECOMMENDATIONS

1. The First Step Should Be to Use the USMS Concept to Create a Stand-Alone Program

If the USMS concept is going to be used to help create a backup pool of experienced non-sailing mariners, then using it to create a stand-alone program is the best method. There are numerous issues that need to be resolved prior to program implementation. The various elements that make up a program’s structure also need to be devised. A description of the issues and elements follows:

- **Mission:** MARAD needs to articulate clearly the intended mission of the USMS program. MARAD needs to show that there is a specific need for the creation of this program and if it is not established, that potential consequences could be the inability of the U.S. to complete its strategic sealift mission. It also has to be shown how and when this program will be used. If the mission and need can be documented, MARAD will have a much better chance of selling the program, getting mariners to volunteer, and obtaining the required funding and support.

- **Size of program and number of participants:** The total number of mariners required to form this backup pool needs to be established. This will not be an easy task. It is difficult to get accurate information on the number of available mariners in the active and inactive sailing pools. MARAD will have to use information from many sources (e.g., MARAD mariner survey and USCG data) and work with the ship managers and the unions to identify where potential shortages exist. Once a general number by rank, rate, and qualification is determined, it will drive most of the other program requirements. The size of the pool drives how MARAD will recruit and establish incentives to attract these mariners, determine the scope and goals of the training program, the size of the administrative staff, and the funding levels.
- **Stakeholder support and involvement:** To ensure program success, MARAD needs to have stakeholders, specifically the unions and ship managers, involved in program development and as active participants. Both entities need assurances that this program has several benefits to their organizations, not disadvantages. It must be made clear that the intent of the stand-alone program is to act as a supplement (a last resort) to crewing RRF vessels during a contingency. The intent is not to circumvent contracts with ship managers or unions but to provide an “insurance policy” if enough qualified mariners cannot be found through normal channels. Additionally, once the program is established, the unions and ship managers need to remain part of the process with open lines of communication.
- **Funding and program cost:** It will be easier to obtain the necessary funding if the need for a stand-alone program is clearly established, the size and target number of program participants determined, and stakeholders are involved in the planning and considered partners in the program. However, it is still important for MARAD to design a program that controls costs yet achieve its objectives.
- **Entry into the program:** The target group of individuals to volunteer for a USMS program is retirees and non-sailing mariners working in some capacity ashore. One category of mariners that could be required to join the USMS is graduates from the USMMA or SIP participants at the state academies. The current obligation incurred for these individuals is to either go on active duty or join the MMR program. It could be changed so they are either required to, or have the option to, join the USMS immediately after graduation. It is recommended that being able to join either the USMS, go on active duty, or join the MMR program should be the obligation options. It is important to note that the goal for these graduates is for them to actively sail as merchant mariners (if they do not take an active duty commission) after graduation. This would help them gain valuable sailing experience, but would make them part of the active sailing pool and therefore would not meet the intent of the USMS backup

pool. Also, if these graduates were not actively sailing, they would be considered part of a backup mariner pool, but must be enrolled in a USMS training program to stay proficient.

- **Status of USMS participants:** The USMS would be considered a government program. As such, several questions arise that need to be addressed with regard to the status of USMS program participants. Questions include, but are not limited to:
 - Are USMS members entitled to veteran status?
 - Are they considered government employees while performing training or crewing a RRF vessel? If so, what is the liability of the government if the individual kills someone or endangers the crew or the ship? Also, if the individual is killed, who is responsible for him, the government or the ship manager responsible for the vessel?
 - What medical benefits, if any, is the USMS individual entitled to?
 - Since this is a volunteer program, can individuals be involuntarily recalled if they do not voluntarily report to a RRF vessel when assigned?
 - If a member of the USMS decides to return to actively sailing, what happens? Are they still in the USMS pool or do they need to pay back the government for money or training provided?
- **Incentives:** Incentives are critical in order to attract mariners to join the USMS program. Two basic types of incentives need to be offered: monetary and access to training. To entice a non-sailing mariner to join, the government should pay for the cost of the license and the necessary qualifications and training needed for that license. The government should also pay the mariner at the rate he or she receives when sailing while in a training or active status (crewing a RRF vessel). It is recommended that a retirement or 401(k) type of plan not be one of the initial incentives offered because it could be cost prohibitive. In terms of training incentives, access to the courses necessary to maintain their qualifications and access to activated RRF vessels or commercial ships should be the minimum offered.
- **Training:** Since mariners in this pool are not actively sailing, they must train at some minimum level to maintain their proficiency. A comprehensive training plan needs to be developed to track what training mariners need and when. Training requirements should be the minimum necessary to maintain their current license and any RRF unique skills or training as deemed appropriate. Time underway, preferably on a RRF vessel two weeks per year, should be the minimum required for participants.

- **Obligation requirements:** Program participants should be required to obligate in the USMS for five years to coincide with their license renewal and physical. In order to receive the incentives and training provided by the program, mariners must agree to be recalled to crew RRF vessels and to perform the required annual training as specified by their tailored training plan.
- **Program management:** An office within MARAD should actively manage a stand-alone USMS program. Program designers need to ensure that adequate manpower and resources are provided to accomplish this task. It is also important that the person(s) in charge of the program be senior enough to handle all issues and obtain adequate access to policy and decision makers. The person in charge of the program or their assistant also needs to be an experienced mariner (Chief Mate/Engineer or Master).
- **Incorporate Ship Managers and/or MMROCH units into program management:** Program designers should also consider taking advantage of two established organizations to perform or assist in program management. Ship managers perform similar functions needed for administering a USMS program on a daily basis. They have the expertise to perform some or all of the functions needed for this program. The other organization to consider is the MMR Program's MMROCH units. Selected Reservists from these units drill at MARAD headquarters and three regional offices. They are familiar with MARAD, already are funded by the Navy, and are experienced licensed mariners, most serving in the maritime industry ashore.

2. **Enact the MOU and Make the Necessary Changes to Allow MMR Officers to Crew RRF Vessels during a Contingency**

There is a MOU being developed between the Navy and MARAD to allow MMR officers to crew RRF vessels. This would provide the mechanism for guaranteed access to MMR officers for contingency crewing. Several comments stakeholders made showed they were not opposed to MMR officers serving on RRF vessels in their military capacity. If crewing RRF vessels is going to be a new mission for the MMR program, the following are some of the necessary steps or actions:

- Enact the MOU to allow MMR officers to crew RRF vessels
- CNSRF (N14) needs to complete the survey they are currently conducting to determine the current skills and the level of qualification MMR members possess

- OPNAV N42, CNSRF (N14), and MSC (N-00R) need to ensure that the MMR program's training plan is aligned properly so members have the required qualifications to crew RRF vessels
- CNSRF (N14) needs to determine the actual number of non-sailing MMR officers because they will be the ones used for RRF crewing
- MARAD needs to inform and involve the ship managers and unions so they understand how this pool of mariners would be used and how it might impact current crewing and operating procedures
- Possible liability and authority issues need to be worked out between MARAD, the Navy, and the ship managers that having naval officers on board commercially operated vessels with a civilian crew could bring

3. MARAD Needs to Continue to Focus on the Active Merchant Marine and to Pursue Programs to Increase the Active Sailing Pool and Additional Sailing Billets

MARAD and the other agencies involved in strategic sealift need to continue to focus on programs to keep the U.S. Merchant Marine viable. This can be accomplished by having an increase in the number of U.S. commercial ships and or an increase in the number of seagoing billets on existing commercial and government ships.

Recommendations to achieve this include:

- Increase cargo preference percentages for the amount of U.S. cargo that U.S. commercial ships must carry
- Leverage VISA and MSP contracts to require additional onboard billets
- Create more full-time billets on RRF vessels

4. Properly Address and Target Mariners with Steam Experience

If a USMS program is developed, it must address the issue of the number and availability of mariners with steam experience. This group of mariners must be one of the first targeted and recruited into the program because there are not a sufficient number of mariners with this skill in the active sailing pool to crew the RRF. Specific recommendations include:

- A USMS pool must provide the proper incentives to entice mariners with steam experience to join

- If there is not an adequate number of mariners available to fill a predetermined number of billets needed to crew the 46 RRF steam vessels, the USMS program could be used as the method to train diesel engineers to operate steam plants
- A USMS training program should require mariners to take the proper courses and also require these mariners to operate RRF vessels with steam plants a minimum of two weeks a year

D. SUGGESTED FURTHER STUDIES

Areas for future studies include:

- Conduct a study to determine how many inactive mariners are needed for a stand-alone USMS program. Based on those numbers, a cost analysis should be conducted of the various components that would make up the program such as administration, training, incentives, and travel to identify the main ones.
- Assess how a stand-alone USMS program could be used or modified to provide personnel to crew MSC vessels, or ships in either the VISA or MSP programs if mariner shortages occur.
- Conduct a survey of USMMA students and SIP participants at the state maritime academies to assess their thoughts on the USMS. How do they feel about the current obligation to go on active duty or join a reserve program? Would they be in favor of joining the USMS upon graduation?

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APPENDIX A. STRATEGIC SEALIFT ASSETS (FROM MSC 2001)

Category	Dry	Tanker	Pax	Total
MSC Force	50	9	0	59
Fast Sealift Ships (FSS)	8			
Large Medium-Speed RO/RO (LMSR)	14			
Maritime Prepositioning Ships (MPS)	14			
PREPO (USNS)			1	
PREPO (U.S. Charters)	9			
PREPO (RRF Tendered to MSC)	2		2	
RRF Tendered to MSC	0			
Other U.S. Charters	3		6	
Ready Reserve Force	63	7	2	72
Auxiliary Crane Ship (T-ACS)	9			
Breakbulk (BB)	13			
Lighter Aboard Ship (LASH)	4			
Sea Barge (SEABEE)	3			
Roll On/Roll Off (RO/RO)	31			
Combo	1			
Aviation Support (T-AVB)	2			
U. S. Commercial	109	76	2	187
Readiness Agreements	105	38	0	143
Breakbulk	4			
Container	77			
Container RO/RO	5			
RO/RO	7			
Car Carrier	8			
LASH	4			
Other U.S. Commercial	4	38	2	44
Effective U. S. Control	49	63	5	117
Other Allies	48	11	0	59
Overall Total	319	166	9	494

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**APPENDIX B. READY RESERVE FORCE SHIPS AND MANNING
FOR FY 2002 –2005 (FROM TOKARSKI 2000)**

#	SHIP NAME	R-STATUS	LICENSED ROS	LICENSED SURGE	UNLICENSED ROS	UNLICENSED SURGE	TOTAL
1	ADMIRAL WM CALLAGHAN	4	5	4	5	12	26
2	ALATNA	10		10		15	25
3	AMERICAN OSPREY	30		11		22	33
4	BEAVER STATE	4	5	6	5	22	38
5	CAPE ALEXANDER	5	5	6	4	21	36
6	CAPE ANN	10		11		25	36
7	CAPE ARCHWAY	10		11		25	36
8	CAPE AVINOF	5	5	6	4	21	36
9	CAPE BLANCO	5	5	6	4	16	31
10	CAPE BORDA	5	5	6	4	16	31
11	CAPE BOVER	5	5	6	4	16	31
12	CAPE BRETON	10		11		20	31
13	CAPE DECISION	4	5	5	5	12	27
14	CAPE DIAMOND	4	5	5	5	12	27
15	CAPE DOMINGO	4	5	5	5	12	27
16	CAPE DOUGLAS	4	5	5	5	12	27
17	CAPE DUCATO	4	5	5	5	12	27
18	CAPE EDMONT	4	5	5	5	12	27
19	CAPE FAREWELL	10		11		19	30
20	CAPE FEAR	10		11		19	30
21	CAPE FLATTERY	10		11		19	30
22	CAPE FLORIDA	10		11		19	30
23	CAPE GIBSON	5	5	6	4	17	32
24	CAPE GIRARDEAU	5	5	6	4	17	32
25	CAPE HENRY	5	5	5	4	15	29
26	CAPE HORN	4	5	5	5	13	28
27	CAPE HUDSON	4	5	5	5	13	28
28	CAPE INSCRIPTION	5	5	6	4	19	34
29	CAPE INTREPID	4	5	6	5	18	34
30	CAPE ISABEL	5	5	6	4	19	34
31	CAPE ISLAND	4	5	6	5	18	34
32	CAPE JACOB	PREPO					36
33	CAPE JOHN	5	5	6	4	21	36
34	CAPE JOHNSON	5	5	6	4	21	36
35	CAPE JUBY	5	5	6	4	21	36
36	CAPE KENNEDY	4	5	4	5	14	28
37	CAPE KNOX	4	5	4	5	14	28
38	CAPE LAMBERT	10		11		20	31
39	CAPE LOBOS	10		11		20	31
40	CAPE MAY	5	5	8	4	16	33

41	CAPE MENDOCINO	10		13		20	33
42	CAPE MOHICAN	5	5	8	4	16	33
43	CAPE NOME	10		11		25	36
44	CAPE ORLANDO	4	5	4	5	11	25
45	CAPE RACE	4	5	6	5	12	28
46	CAPE RAY	4	5	6	5	12	28
47	CAPE RISE	5	5	6	4	13	28
48	CAPE TAYLOR	4	5	4	5	12	26
49	CAPE TEXAS	4	5	4	5	12	26
50	CAPE TRINITY	4	5	4	5	12	26
51	CAPE VICTORY	4	5	4	5	11	25
52	CAPE VINCENT	4	5	4	5	11	25
53	CAPE WASHINGTON	5	5	4	4	16	29
54	CAPE WRATH	5	5	4	4	16	29
55	CHATTAHOOCHEE	10		10		15	25
56	CHESAPEAKE	PREPO					33
57	COMET	10		10		23	33
58	CORNHUSKER STATE	5	5	6	4	21	36
59	CURTISS	5	5	6	4	25	40
60	DIAMOND STATE	4	5	6	5	24	40
61	EMPIRE STATE	10		14		54	68
62	EQUALITY STATE	4	5	6	5	24	40
63	FLICKERTAIL STATE	5	5	6	4	21	36
64	GEM STATE	5	5	6	4	22	37
65	GOPHER STATE	PREPO					33
66	GRAND CANYON STATE	4	5	6	5	21	37
67	GREEN MOUNTAIN STATE	4	5	6	5	22	38
68	KEYSTONE STATE	5	5	6	4	22	37
69	METEOR	10		11		20	31
70	MISSION BUENAVENTURA	20		11		21	32
71	MISSION CAPISTRANO	20		11		18	29
72	MOUNT WASHINGTON	5	5	6	4	18	33
73	NODAWAY	10		10		15	25
74	PATRIOT ST./GOLD. BEAR	10		14		54	68
75	PETERSBURG	PREPO					33
76	POTOMAC	10		11		22	33
77	WRIGHT	5	5	6	4	25	40
	TOTALS:		255	525	230	1361	2506

RRF Summary Data:

	Licensed	Unlicensed	Total
Total RRF PREPO	44	91	135
Total RRF ROS	255	230	485
Total RRF Surge	525	1361	1886
Total RRF	824	1682	2506

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APPENDIX C. INTERVIEW PROTOCOL PROVIDED TO INTERVIEWEES

The Maritime Administration (MARAD) has proposed the development of a surge pool of experienced inactive merchant mariners who could be called upon in time of contingency crewing needs, dedicated to RRF service. This pool would be a supplement, not replacement, to the current active pool of mariners that the RRF draws from.

This pool would be developed using the United States Maritime Service (USMS) concept. The USMS was initially established in 1938 by President Roosevelt to train merchant mariners for the purpose of crewing merchant ships during World War Two. The legal authority for MARAD to reestablish the USMS is granted in the Merchant Marine Act of 1936 and is still valid today. The statute authorizes the development of a USMS but does not specify or place restrictions on how the USMS should be structured.

There are two basic approaches for the development of a pool that are being considered: Option 1 is a stand-alone USMS pool under MARAD. Option 2 is a USMS program that is integrated with the Navy's Merchant Marine Reserve (MMR) Program. A possible third option is to create both option 1 and option 2.

The purpose of my research is to provide MARAD and the Navy with elements of how this pool could be developed and structured from the perspective of stakeholders involved or familiar with the U.S. Merchant Marine, the Ready Reserve Force and the Navy's Merchant Marine Reserve.

Questions will be asked in the order presented below. Each question will be asked once as it pertains to the creation of a stand-alone USMS pool, then again for a dual USMS/MMR pool.

Research Questions:

1. What are the major advantages and disadvantages for each of these options?
2. What incentives are needed to entice individual mariners to join and remain in the program and for affected organizations to support/participate in a USMS program?
3. What should be the training and qualification requirements?

4. What should be the sign up and obligation requirements for members participating in the program?
5. What organization(s) should manage the program?
6. What are the obstacles (real or perceived) in using the USMS concept? What rules, regulations, procedures, policies, and/or laws need to be changed or modified to accomplish this task?
7. What are the opinions of stakeholders on the forming of a stand-alone pool or dual USMS/MMR pool?

APPENDIX D. INTERVIEW PROTOCOL WITH PROBE QUESTIONS

BACKGROUND QUESTIONS

1. Demographic Data / Background Data

Job title and description, organization, years of mariner experience and/or interaction and background information

Rating/position/highest USCG qualification

2: Describe your current or past interactions, if any, with MARAD? With the Ready Reserve Force? With the Merchant Marine Reserve Program? Strategic sealift involvement?

1. What are the major advantages and disadvantages for each of these options?

3. What advantages do you see for the maritime industry and the RRF in the establishment of the stand-alone USMS option? Any disadvantages?

Probes:

Increase number of mariners available to man RRF vessels (Adv)

Excellent training opportunities (Adv)

Ensure that certain rates have adequate back-up numbers (Adv)

Additional costs (disadvantage)

4. What advantages do you see for a dual USMS/MMR option? Any disadvantages?

Leverage an existing program (Adv)

Funding is already being provided for training and qualifications (Adv)

No non-licensed members (disadvantage)

Cultural bias towards military (disadvantage)

Current membership is too junior (3rd mates or engineers)

Who and how many do you allow to participate

5. What are the most advantageous aspects, if any, of these two options to your sector? Any disadvantageous aspects?

2. What incentives are needed to entice individual mariners to join and remain in the program and for affected organizations to support/participate in a USMS program?

6. What concerns do you or your organization have about the creation of a stand-alone pool? About a USMS/MMR pool?

7. Based on those concerns, what type of incentives or assurances would you or your organization need to buy in or support this program?

8. What incentives or program characteristics do you think are needed or should be provided to get mariners to join the program?

Probes:

Pay for their qualifications, license renewal, and STCW

Provide and pay for training opportunities to maintain operational currency

Minimal administrative requirements, especially Navy regulations

Medical or military facility benefits/access

Others

3. What are the training and qualification requirements?

9. What training opportunities (and frequency) would you envision providing to pool members?

10. How would you ensure that USMS members possess and retain the unique skill or qualifications that are associated with RRF vessels (i.e. steam plants)?

4. What should be the sign up and obligation requirements for members participating in the program?

11. What type of sign up and obligation requirement do you think is necessary for members participating in the program?

Probes:

Numbers of years to obligate,

That they will sail if called upon and keep their license and qualifications current during the period,

That they will keep recall info current and notify in the event of a change of info/status)

5. What organization(s) should manage the program?

12. What organization or organizations do you think should manage or coordinate a stand-alone USMS program? A dual USMS/MMR program?

Probes:

A totally new organization

Current code in MARAD

The Program Manager office for MMR (CNSRF N14)

MMR members that drill with MARAD

Ship managers and/or unions with MARAD oversight

6. What are the obstacles (real or perceived) in using the USMS concept? What rules, regulations, procedures, policies, and/or laws need to be changed or modified to accomplish this task?

13. Are there any obstacles in the way preventing the developing a stand-alone program? A USMS/MMR program?

Probes: Any rules, regulations, procedures, policies, or laws
 Funding issues
 Structural Issues
 Cultural Issues or differences

7. What are the opinions of stakeholders on the forming of a stand-alone pool or dual USMS/MMR pool?

14. Should the program be limited to non-actively sailing mariners?

15. (PRIMARY QUESTION) To wrap up our discussion, of the 3 options proposed, a stand-alone USMS pool under MARAD control, a dual USMS and MMR program, or both, which do you think is the best approach: Why?

16. Do you in general support the initiatives that MARAD has proposed?

17. If these pools were designed as you have suggested, would you support their establishment? Why or why not?

18. Is there a better way to achieve “assured availability” of merchant mariners for RRF crewing in addition to the current process?

19. Is there anything else you would like to add that we have talked about? Do you have any questions for me?

LIST OF REFERENCES

Congress of the United States, Congressional Budget Office, "Moving U.S. Forces: Options for Strategic Mobility," A CBO Study, February 1997.

Donnelly, John, "The next time around," *Sea Power*, Vol. 42, Issue 2, pp. 29-30, May 1999.

Farris, Theodore M and Welch, Don, "High-speed ship technology: Maritime vessels for the 21st century," *Transportation Journal*, Vol. 38, Issue 1, pp. 5-14, Fall 1998.

Interview between CDR Peter Blake, USNR, on behalf of MARAD's Western Regional Office, and the author on 26 April 2001.

Interview between Captain Ron McFadden, USN, OPNAV N42E, and the author, 10 May 2001.

Interview between RADM (ret) Carl Seiberlich, USN, and the author, 23 April 2001.

Kesteloot, Robert W., "Problems and Opportunities", *Sea Power*, Vol. 42, Issue 5, pp. 25-28, May 1999.

[KFS SOP] Korean Flag Shipping Standard Operating Procedures, signed between Military Sealift Command and Republic of Korea, April 15, 1995.

Lockland, Walter, Chief, MARAD's Division of Operations Support, "Exercise BREAKOUT 01 Quick-Look Report", memorandum dated 4 May 2001.

MARAD, Associate Administrator for National Security, "Merchant Mariners for Sealift: Supporting Contingency Sealift Operations into the Future," September 1999.

[MEBA] Calhoon MEBA Engineering School Catalog, 2001.

McFadden, Ronald, Captain, USN, OPNAV N42E, e-mail sent to author on 5 June 2001.

[MMIPT] Merchant Marine Manning Integrated Process Team Charter, OPNAV (N4), 14 April 2000.

[MMR Handbook], <http://www.navres.navy.mil/navresfor/navsurf/n1/n14/chapt03.htm>, accessed February 14, 2000.

[MMR Presentation], <http://www.navres.navy.mil/navresfor/navsurf/n1/n14/mmr-home.htm>, accessed June 5, 2001.

[MSA] "Maritime Security Act Pamphlet," MARAD homepage, <http://www.marad.dot.gov>, accessed April 15, 2000.

[MSC] "Strategic Sealift Inventory", Military Sealift Command homepage, <http://www.msc.navy.mil/n35/QUARTEL.Y.htm>, accessed May 15, 2001.

[NDTA] National Defense Transportation Association (NDTA), "NDTA Manning Subcommittee Interim Report", 13 March 2001 (draft).

OPNAV N42, "Merchant Marine Reserve, United States Naval Reserve, *The Navy's Professional Mariners*", power point presentation, 1999.

[NVR] "Ready Reserve Force", Naval Vessel Register homepage, http://www.nvr.navy.mil/stat_12.htm, accessed April 22, 2000.

Rubin, Herbert J. & Rubin, Irene S. (1995). Qualitative Interviewing: The Art of Hearing Data. Beverly Hills, CA: SAGE Publications, Inc.

"Ship Introduction", Military Sealift Command homepage, <http://www.msc.navy.mil/PM4/STRATSEA-MPFE.HTM>, accessed April 15, 2000.

Thompson, Stephen J., 98-864: The Maritime Security Program (MSP) in an International Commercial Context: A Discussion, Report for Congress, 1998.

Tokarski, Kevin, MARAD, FY05 RRF Spreadsheet, February 2000.

Tokarski, Kevin, MARAD, e-mail dated 7 June 2001.

"Transportation Institute National Defense Role," Transportation Institute Home Page, http://www.trans-inst.org/national_def_role.html, accessed April 20, 2000.

[USCG] United States Coast Guard, "Navigation and Vessel Inspection Circular NO. 4-00, June 13, 2000.

[USCG-1] United States Coast Guard, "Navigation and Vessel Inspection Circular NO.6-00, August 3, 2000.

[USMM], United States Merchant Marine Website, U.S. Maritime Service: the Forgotten Service, URL: <http://www.usmm.org/usms.html>, (Accessed 6 December 2000).

[VISA] "Voluntary Intermodal Sealift Agreement Pamphlet," MARAD homepage, <http://www.marad.dot.gov>, accessed April 22, 2000.

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